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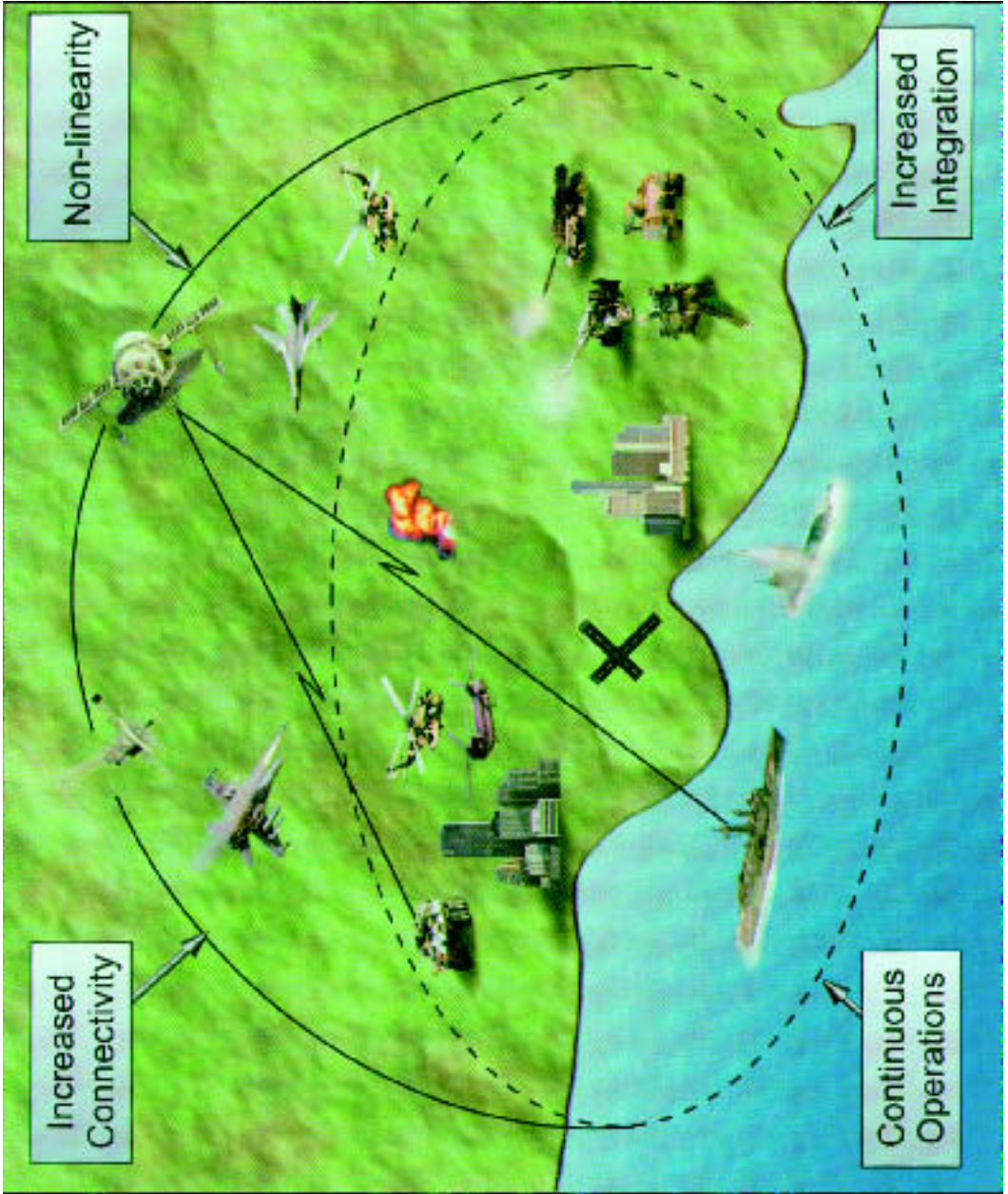
**Front Cover**

*"Waiting" Flight deck controller*

Photograph by ABPH Damian Pawlenko

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*Characteristics of a modern battlespace.  
Courtesy of Land Warfare and Development.*

# Tactical Understanding in the Australian Army Officer Corps

By Lieutenant Colonel Luke Carroll

*Success in battle depends on a number of factors. Prominent among these are the commander's tactical ability and leadership, together with the morale, discipline and standard of training of the soldiers he (sic) commands. Success will be unlikely for commanders who do not possess both a thorough understanding of tactics and the ability to apply it to each battlefield situation.*

MLW 1.1.4 Formation Tactics

*In no other profession are the penalties for employing untrained personnel so appalling and so irrevocable as in the military.*

MacArthur 1933

*Australian taxpayers spend millions of dollars each year maintaining the Australian Defence Force to succeed in battle. In excess of \$200 million is spent annually on officer professional development alone (Commonwealth of Australia 1995, 2) in the expectation that military officers should be experts in their field. For Army officers in particular, this ultimately means having sound tactical understanding; acquiring and maintaining the knowledge, skills and abilities that will allow them to apply the art and science of disposing military force in contact or proximity with an enemy. All Australian Army officers receive instruction in the subject of tactics throughout their careers, but the exact requirement for expertise is surprisingly ill defined. As a result, few attempt to particularise exactly what and how much they should know of the subject. This is both at odds with public expectations and may be leading the Army towards the development of a culture of assumption that officers are tactically competent. However the reality of their training may be falling short of that required to survive an increasingly more complex and demanding modern battlespace.*

There is a very wide body of literature on the historical aspects of military success and failure and of the theories of war. Contemporary military issues, of which officer training and education form an essential part, are also well documented. However the histories and reports show scant detail of how officers have received their tactical training, acquired their understanding and gauged their expertise other than through being in combat: where they either made satisfactory decisions or failed. The data on tactical training in particular is vague and fragmented: histories focusing towards the results of events and the reports generally leaning towards identifying theory and methods which can improve general practice. A significant research gap exists in the area between what history implies might have helped and what the contemporary studies suggest is appropriate. What the recent literature does indicate is that

contemporary investigation of officer education and training has tended towards the generalised development of officers. There are few specific, identifiable writings about tactical training. Little if any previous research has specifically targeted the area of tactical competence. This appears incongruous given that "the function of an officer corps is to plan and conduct military operations (and that) all officers must, as the basis of their professional competence and ability, understand and increase their knowledge in these areas". (Moore 1977, 21).

This article analyses the status of tactical training in the Australian Army officer corps and reviews its effectiveness. It investigates the thesis that levels of tactical understanding in the officer corps are in decline and seeks to establish the variables responsible, the ability of current training regimes to redress possible deficiencies and seeks solutions to the perceived problem. For

the purposes of the article, tactical understanding is defined as the sum of four elements: technical knowledge, experience, ability to use a tactical decision-making process effectively and the opportunity to practice in a professionally demanding environment.

### On Tactics

Liddell Hart (1943, 274) suggests that “If we want to understand tactics, why begin at the most difficult end where the fundamentals are obscured by a mass of details and conditions?” He believes there is a simpler way of understanding the essentials:

*Instead watch a boxing match, and a few minutes reflection will enable us to grasp the principles that govern all tactics. Every action is seen to fall into one of three main categories – guarding, hitting and moving.*

The continuation of this analogy describes how an opponent ultimately needs to be menaced in two directions at the same time with the result that in parrying one blow, exposure to the other results. Thereby, “the key formula of all tactics, great or small (is) that of *fixing combined with decisive manoeuvre*” (275). This is a particularly lucid device but perhaps risks over-simplifying the subject in that the reader may be seduced into overlooking the “difficult end” of the subject, a convenient but imprudent indolence.

From a military perspective, the organisational authority for a subject comes from doctrine. Current Australian doctrine contains differing definitions of tactics. ADFP 6 *Operations* for example, refers to it as “concerned with fighting on the battlefield. In simple terms, it is a balanced combination of two functions, the application of firepower and manoeuvre and the control of both by commanders”. MLW 1.1.4 *Formation Tactics* (1991) cites it as “The ordered arrangement and manoeuvre of units in relation to each other and or to the enemy in order to utilise their full potentialities”. These definitions can be usefully combined with Liddell Harts’ explanation but they also need to be contextualised within the philosophical structure of war, which is commonly accepted as having three tiers; the strategic, operational and tactical levels. Dupuy (1987, 64) additionally identifies what he refers

to as “a hierarchy of military combat” residing within the levels of conflict. The component elements of this hierarchy are shown in an adapted form in Figure 1 and provide an insight into the framework of the overall battlespace. The combat types are described in full at Table 1 (page 6).

These illustrations allow initial induction of the sorts of knowledge, skills and attitudes necessary for a leader to competently execute tactics, thereby being able to function effectively at the tactical level and ultimately having the experience and wherewithal to operate well at higher levels of conflict. They also allude to its inherent intricacy.

This is because tactics should also be considered the sum of many influences; as much a product of culture and geography for example, as of operational requirement, military experience or technology. Van Creveld (1985, 48) refers to a range of factors leading to the tactical flexibility enjoyed by the Romans including “a body of officers who knew what to do without being told, and were capable of passing that knowledge down to the next generation”. Down through history it is evident that different types of tactics have been required by different elements of the same army, alluding to a need for differing selection and training. Referring to English infantry of the early 19th century for example, Fuller (1924, 144) notes that “Light infantry tactics required comradeship much more so than the tactics of the line”. S.L.A Marshall (1947, 38) relates that tactics can be “unnecessarily weakened” through failing to consider the effects of human nature on their implementation. Von Mellenthin (1956, 349-367) and a United States Army doctrinal publication, *Russian Combat Methods in World War II* (1950, 33-35) both examine the “peculiarities” of Russian tactics, the latter attributing these to “roots in the Russian himself and in his social order (and) in the Russian land mass”. Similarly, the Australian Army documents *Infantry Battalion Lessons From Vietnam 1965-71* (1988), *Junior Leadership on the Battlefield* (1990) and Pratten and Harper’s (1996) *Still the Same: Reflections on Active Service from Bardia to Baidoa*, give an insight into the Australian version of this “tactical

Classification Combat Types	Conflict Level “are a matter of”	Force Elements “and are carried out by”	Command Level “under command of”
Duel	Tactics	Individuals	Line Officers
Action		Small Unit (Section, Platoon, Company, Battalion)	
Engagement		Unit to Formation (Company, Battalion, Brigade, Division)	
Battle	Operations	Higher Formation (Division, Corps, Army, Army Group)	Sub-Commanders
Campaign			
War	Strategy	Entire Force	Commander in Chief

**Figure 1** – *Relationship of Tactics, Operations and Strategy* (Source: Adapted from Dupuy 1987)

culture”, i.e. the Australian way of doing things. What all these examples ultimately accentuate is that tactical competency is a complex, and possibly unique synthesis of theory and practice and of human and environmental factors. A new tactic might thus be either evolutionary or revolutionary, but in organisational application it will take time to refine because of the intimacy of the human and technical liabilities involved in training for it in peace and in potentially orchestrating it live in conflict.

### The Training of Officers

The requirement for officers to receive tactical training is thus reasonably self-evident but the issue of what, how much and when is rather less distinct. Australian doctrine, appears to contain no direct specification of it however MLW 1.1.2 *Command and Control* leaves little doubt of its importance relative to the function of command. In particular, it indicates that the successful exercise of command depends on an officer understanding the significance of tasks relative to the tactical and operational objectives

of a situation. It is stressed that such understanding “must be fostered from the start in officer training” with the following points being emphasised:

- All commanders must understand the priorities and procedures of the level of command two above them and the implications of the wider plan for those at the level of command two below them.
- All officers must know the capabilities of combat and supporting arms at the tactical level.
- Tactical doctrine must be regarded by officers and non-commissioned officers as the minimum level of professional knowledge.
- Training must enable commanders to experiment and take calculated risks.

The officer training system supports this philosophy with a progression of courses, commencing with initial officer training, a succession of courses at Army schools and ostensibly supported by on the job training and job experience in units. But the degree to which

Duel	Combat between two individuals or between two mobile fighting machines, such as combat vehicles, combat helicopters, or combat aircraft, or between a mobile fighting machine and a counter-weapon. A duel begins when one side opens fire and ends when one side or both are unable to continue firing, or stop firing voluntarily. A duel is almost always part of an action. A duel lasts only a few minutes.
Action	An action is combat between two forces, neither larger than a battalion nor smaller than a squad (section), in which each side has a tactical objective. An action begins when the attacking force initiates combat to gain its objective, and ends when the attacker wins the objective, or one or both forces withdraw, or both forces terminate combat. An action often is part of an engagement and sometimes is part of a battle. An action lasts for a few minutes or a few hours and never lasts more than one day.
Engagement	An engagement is combat between two forces, neither larger than a division nor smaller than a company, in which each has an assigned or perceived mission. An engagement begins when the attacking force initiates combat in pursuit of its mission and ends when the attacker has accomplished the mission, or ceases to try to accomplish the mission, or when one or both sides receive significant reinforcements, thus initiating a new engagement. An engagement is often part of a battle. An engagement normally lasts one or two days; it may be as brief as a few hours and is rarely longer than five days.
Battle	Battle is combat between major forces, each having opposing assigned or perceived operational missions, in which each side seeks to impose its will on the opponent by accomplishing its own mission, while preventing the opponent from achieving theirs. A battle starts when one side initiates mission-directed combat and ends when one side accomplishes its mission or when one or both sides fail to accomplish the mission(s). Battles are often parts of campaigns. Battles between large forces usually are made up of several engagements, and can last from a few days to several weeks. Naval battles tend to be short and – in modern times – decisive.
Campaign	A campaign is a phase of war involving a series of operations related in time and space and aimed toward achieving a single, specific, strategic objective or result in the war. A campaign may include a single battle, but more often it comprises a number of battles over a protracted period of time or a considerable distance, but within a single theatre of operations or delimited area. A campaign may last only a few weeks, but usually lasts several months or even a year.
War	War is an armed conflict, or state of belligerence, involving military combat between two factions, states, nations or coalitions. Hostilities between the opponents may be initiated with or without a formal declaration by one or both parties that a state of war exists. A war is fought for particular political or economic purposes or reasons, or to resist an enemy's efforts to impose domination. A war can be short, sometimes lasting a few days, but usually is lengthy, lasting for months, years or even generations.

**Table 1** – *Elements of Dupuy's Hierarchy of Military Combat* (Source: Dupuy 1987)



this knowledge is retained, tested or developed has traditionally been questionable:

*The greatest weakness commented upon by most field grade officers who had served with battalions in Vietnam was the lack of practical tactical training of company commanders and CP staff...Tactical considerations can be learnt from books, however they will never be properly understood unless they are constantly applied in the field under varying conditions of ground and situation.*

(Australian Army 1988, 6-8)

*From my observations at the Infantry Centre it seems to me that in peacetime we have got to spend a longer time training fewer teams...How can we for example, expect a Captain to be a sound tactician if he does not understand intimately the role, capabilities, employment and deployment of his own corps weapons, let alone understand those of other Arms? When you ask people who come to the Infantry Centre when did you last fire a weapon or go into the field, when did you last do a TEWT and so forth. The answers are alarming.*

(Hammett in Australian Army 1982, 104)

It needs to be noted that at the time of the latter comment, a new suite of officer training courses recommended by the Regular Officer Development Committee (RODC) was embryonic. Conversely, had the earlier quote been in print at the time of the RODC, it is interesting to wonder about the degree to which it might have been considered disconcerting.

### **The Regular Officer Development Committee**

In 1977-78 the RODC conducted a detailed review of Army officer training and education needs. Its tasks were twofold: to determine the military-civilian education qualifications and the levels of training and experience required by officers, and to prepare a program to meet those needs. It was a substantial and enduring undertaking, incorporating wide consultation and surveying “by interview and questionnaire, the opinions of a majority of serving officers in the ARA” (Jans 1979, 33). The committee made extensive recommendations relating to career management, officer employment and training

and education. Many of these recommendations have been applied. Extraordinarily, some still appear to be in the process of implementation, largely as a result of the more recent Officer Professional Effectiveness Review – Army (Project OPERA). Similarly however, some important training and education suggestions have remained underdeveloped or only partially executed. A number of these relate to tactical training.

The report proper was delivered in a single volume supported by five studies, the second of which, *Study Two - Education and Training*, examines the philosophical and practical bases of “short and long term needs” in these two areas (Australian Army, 1978a, xiii). Study Two is itself presented in three parts; Education, Training and Implementing the Concept. The committee defined training as “the systematic development of the attitude/knowledge/skill patterns required by an individual to perform adequately a given task or job” and education as “the development of intellect and knowledge by experience, study and instruction.” They found no precise distinction between the two and felt that elements of each could be contained in the other; the essential difference being that training was perceived as more immediately job-oriented and education more generally intellectually-oriented (Australian Army, 1978b, 18-1). It is thus interesting that tactical issues are considered in both the education *and* training sections of the study and accordingly in the main report i.e. suggesting that the need for tactical understanding is both an intellectual as well as a practical issue. Conversely, to divide the focus of tactical issues into two areas may have been an unintentional error, one that might be considered to have dissipated rather than highlighted the significance of the subject.

Turning to the two key parts, Part One (Education) contains a particular section which, though lengthy, is of such importance to the rationale behind the new training hierarchy proposed in Part Two, that it is quoted in full below:

*A distinguishing feature of the corpus of military knowledge is the knowledge of tactics. The study of tactics involves the use of*

*deductive reasoning; it is an analytical exercise which requires intellectual prowess besides procedural and technical knowledge, and resolution of tactical problems is a decision making process based upon a body of doctrine and applied with analysis of known or deduced factors. Study of tactics is a pursuit which is, if not unique to, at least singularly characteristic of the profession of arms. An understanding of tactical principles and a grasp of the procedures used by land forces in combat, along with an awareness of the capabilities and limitations of sea and air forces which support ground troops, are important components of an Army officers professional knowledge. And this is not restricted to officers allotted to the combat elements of the Army; tactical knowledge is important also to the instructional, planning, decision-making and logistical capabilities of officers who do not themselves direct the manoeuvre of combat units. For field commanders, and for staff officers engaged in operational planning and force development, a high level of tactical knowledge is critical for effective job performance.*

(Australian Army, 1978b 9-18)

The same section describes further how development of tactical knowledge was at that time effected by a combination of formal courses and the acquisition of experience. This remains

unchanged conceptually, and thus seems unspectacular. What is significant however, is the consistency of observations noted in post-exercise reports from collective training exercises and tactical exercises without troops (TEWTs) in the period 1975-77 on the tactical abilities of officers. The consistent themes are that a lack of tactical understanding was widespread, officers were out of practice and a need existed for refresher training. (Australian Army, 1978b 9-19). What the RODC Report fails to adequately address, particularly in view of the large quote cited above, is the reason *why* this was so. Such an omission is both interesting and important. Presumably, at least to some degree, it was a product of the enormity of their overall task. It may also be attributable to a lack of means by which to effectively gauge the precise training liability, in addition to the more generally perceived “need”.

These opinions notwithstanding, the thrust of Part Two is unmistakable in its operational focus, identifying six underpinning principles of training and stating that the purpose of Army officer training was “to sustain the combat effectiveness of the Army” (Australian Army, 1978b 17-1). The principles that were to guide the application of officer training are described in Table 2:

The RODC recommended a continuum comprising seven courses to achieve the purpose, leading to their implementation (as a continuum)

<b>Operational Emphasis</b>	Training should be directed primarily towards the conduct of land warfare in joint operations.
<b>Relevance</b>	Training should develop expertise in regimental and staff employment and allow officers to become effective as soon as possible after taking up an appointment.
<b>Progression</b>	It should flow logically so that each activity builds on the preceding and contributes to the succeeding activity.
<b>Managerial Competence</b>	Training should develop all officers as efficient resource managers.
<b>Efficiency</b>	Training should use resources economically, be coordinated and be integral to career management. It should use residential courses of training only where necessary, and make maximum use of on the job training, unit and formation training and self study methods.
<b>Adaptiveness</b>	It should be readily adaptable to meet new circumstances and technologies and to cater for the demands of expansion.

**Table 2 – RODC Officer Training Principles** (Source: RODC Report 1978)

All Corps Courses		ISC		IOC	C&SC	AOC	SOSP
Corps Courses	ROBC		ROAC				
Rank	LT	LT-CAPT	CAPT	MAJ	MAJ	LTCOL	COL(+)

**Figure 2** – *RODC Regular Officer Training Continuum* (Source: Adapted from RODC Report 1978)

in the early 1980s, and maintenance with only minor changes since that time (Crawshaw and Reynolds 1997, 5-6). That “study of military operations should be the central theme in officer education and training” (Australian Army, 1978a 7-4) was thus cemented. The courses proposed for the new continuum are shown in Figure 2 using their current labels, including the intended rank target.

However, within the mass of recommendations handed down and the previously cited dissipative effect of describing tactical development in both the education and training components of Study Two, the longer-term priority of tactical training may not necessarily have equalled that which the Part One quote implies it might have. The continuum of courses and their sequence removed duplication and overcame identified training discrepancies in a number of areas, particularly staff training. It also mitigated the observation at the time that it was “not possible to determine precisely the rationale which underlies the current practice for the tactical training of officers.” (Anon 1977, 3). The report suggested that further elective studies in particular aspects of tactics should be available for students at the Staff College “who have been designated for command”. It further said that special study projects on tactics should be established to be undertaken by senior officers at C&SC and that there should be more detailed study of formation tactics by officers selected to command units and formations, and by officers whose staff appointments concerned operational planning. It recommended that simulation and gaming facilities be urgently pursued and that they should “first be available to the Staff College and the Land Warfare Centre” (Australian Army, 1978a 2-18). Finally, in order that the symbiotic

relationship between tactics and logistics could be fully recognised, it proposed combining the two in the redesignated “operations” courses within the new suite. Of all these, only the latter was fully implemented and endures.

However, and perhaps because of this, there remains a nagging doubt over whether the RODC analysis of tactical training truly had the opportunity to dig deeply enough. The chapter on surveys of officer attitudes, aspirations and opinions noted of “Tactical Studies”, that “tactics courses received unenthusiastic ratings”. In essence, the feedback from junior officers (on the “TAC 1” course) was negative and that from more senior officers (on the TAC 3 and 5 courses) “had too few respondents evaluating them to permit specific deductions.” (Australian Army, 1978b 16-1). The RODC therefore lacked the data, the time and probably the expertise to deliver comprehensive competencies for the training of officers. Jans (1979, 40) notes that “The absence in the report of complete objectives and of a full list of key jobs, is not serious, provided it is emphasised (as the RODC did) that this is a task which must be tackled later.” Curiously, it was to be a further 20 years and virtually by accident before this suggestion actually unfolded in detail.

### The Crawshaw Study

A more recent addition to the literature on officer training is the “Study into the Continuum of Officer Training From Lieutenant to Lieutenant Colonel”, carried out by Crawshaw and Reynolds in 1997 on the direction of Commander Training Command (Army). The Crawshaw Study endorsed the validity of the RODC, though was established “to resolve concerns over the nature and relevance of

all-corps officer training for Army's future needs." (Crawshaw and Reynolds 1997, 1). The study arose partly as the result of pressure from the Land Warfare Centre where it was felt that there was insufficient linkage between the courses of the officer-training suite and that the continuum lacked depth. This ultimately led to Crawshaw, who was about to commence a study of staff cadet competencies at the Royal Military College (RMC) having his terms of reference dramatically increased. The study was significant in that it was the first comprehensive examination of officer *training* across these ranks since the RODC. More particularly, it led to the establishment of a program to compile a full schedule of the competencies required by officers across the spectrum of their employment. This program was completed in 1999 but remains the subject of ongoing development at RMC. Importantly however, the competency framework only covers officers of the ranks from Lieutenant to Lieutenant Colonel.

A key concern with regard to the Crawshaw Study is that it failed to establish the clarity of definitions achieved by the RODC. In relation to the development of tactical understanding the study is vague and contains no precise identification of a requirement for officers to specifically possess tactical skill. This is disturbing given its acknowledgement (through endorsement of the RODC Report) of the need for operational competence and its drawing on two other "more restricted" studies that it identified as having taken place during the interregnum since the RODC.

### The Millen Report

The first of these was the so-called Millen Report carried out at the Australian Army Command and Staff College at Queenscliff in 1995. It focused on identifying command, leadership and management competencies for Army personnel in the ranks from Private through to Lieutenant Colonel. The report was compiled from data gathered by survey and interviews. It developed a task model and tabulated the skills, training strategy and formal training requirement considered necessary to achieve each task. In the rank of Major for example, the task list included 140 separate tasks,

but only two of these could be considered solely and unequivocally "tactical" in nature:

- Control the application of firepower and/ or manoeuvre (Task 22 of 140); and
- Control the application of firepower with reference to the Laws of Armed Conflict (Task 23 of 140).

The table of tasks included a matrix showing data gathered from respondents in each military rank group. These responses were shown as percentages under the headings: Performed, Trained, Difficulty, Frequency, and Importance. Interestingly, the responses for Task 22 were amongst the lowest of the complete task set i.e. Only 11 *per cent* of majors thought they had performed the task, 10 *per cent* felt trained in it, only 10 *per cent* actually thought it was a difficult task, 2 *per cent* had performed it frequently and only 11 *per cent* thought it was important. Although the focus of the report was not intended to be tactical, the very low representation of identified tactical tasks and more particularly, the responses towards them are a disturbing indication of attitudes towards tactical competence (particularly as they also correlate with the negative feedback received by the RODC). This is further reinforced by the overall table for officer training (1995, Annex B) suggesting that training in Task 22 is required for Lieutenants and Captains (being considered "essential" for the latter), but that no training requirement exists for Majors and Lieutenant Colonels. The only all corps tactics course in the Army (the Intermediate Operations Course (IOC)) was not even included in the table. These latter aspects are disturbing in the extreme if Hinge (1990, 22) is correct in suggesting that "It is at these rank levels (Major to Colonel) that most future combat actions will be led".

### The Education-Training Paradox

The second study referred to by Crawshaw, *Officer Education: The Military After Next*, was tabled in 1996 having been prepared by the parliamentary Joint Standing Committee on Foreign Affairs, Defence and Trade. The study focused on "the provision of academic studies and professional military education to officer cadets and officers of the Australian Defence Force" (Commonwealth of Australia 1995, v).

Two years in the making and involving around 30 senators and members of Parliament, the committee made 23 recommendations aimed at covering its designated brief. It noted that the ADF identified officer development as including “professional military development” and “specialisation training”, though for its own purposes further subdivided the former into “academic education” and “professional military studies”. Having done so, it thereafter referred to specialisation training as “military training” (1995, 4-6).

Notwithstanding its charter, the report (a 243-page document) covered “military training” (at least one third of the officer development spectrum) in a few brief paragraphs, the last of which suggested that “the issue could usefully form the basis of a further inquiry.” (1995, 7). Whilst this was later articulated as Recommendation 12, “that the ADF establish a review of junior officer development to assess, among other things, the balance between military professional development and war fighting skills.” (1995, 153), it could perhaps also be described as a convenient delimitation. It is difficult to see how such an important report on officer development could dismiss so easily, the skills fundamental to the ability of military officers to perform their line functions and roles, and indeed, for the ADF to therefore be considered professionally credible. Had their mission analysis been more rigorous, they should have challenged their terms of reference. The report is strongly criticised in a range of areas by Day, a former Commandant of the Australian Defence Force Academy. In particular, he highlights the failure to “consider the demands on training time for junior (ADF) officers to attain expertise in navigation, seamanship, coordination of fire control or the making of appreciations and operational plans” (1996, 4). These could reasonably be suggested to be amongst the foundations of tactical skills.

In my view, *The Military After Next* also suffers from an imprecise use of terms. Having delimited “military training”, the report nonetheless frequently refers to “training” and the skill sets within it. This probably occurred due to the differing terminological interpretations of its

submissions and is demonstrative of the difficulty inherent in attempting to distinguish between them. Hence, the committee’s acceptance of advice to delineate between “academic education”, “professional military studies” and “military training” cannot be presumed to have clarified “the grey areas” (1995, 5). It may in fact have contributed towards making things even more indistinct. In its defence on the other hand, *The Military After Next* can be considered a genuine attempt to resolve the education-training paradox that appears to be the hallmark of the professional military officer development debate. But whether it has accurately managed to achieve what was once cleverly described as “balancing Athens and Sparta” (Mench in Smith 1980, 1) is questionable. Numerous works of future war (Toffler and Toffler, 1993; Mohan Malik, 1997; Smith, 1998) accentuate the enormous pressures likely to be faced by commanders, thus implying an increased need for officers who are both well educated as well as highly trained. The great challenge is to particularise the liability for *each*, not just one or the other, and the difficulties of doing so are amply demonstrated by the ambiguities of the literature that comprises the debate.

In the meantime, Cosgrove (in Mohan Malik 1997, 156) observes of contemporary higher level command that:

*Commanders these days have the dilemma of discriminating from a plethora of inputs in order to determine their aim. They must then plan to meet it and to maintain a clear focus in the face of a generally overwhelming mass of operational information which floods in after the plan is set in motion. In all but the highest levels of conflict, campaign commanders will be under enormous pressure springing from the ability and the predisposition of the media, governments and other institutions to engage them in dialogue, debate and de facto review of their actions and plans.*

If we compare this “command pressure” scenario with extrapolation from Figure 1, i.e. that in the broadest sense, the majority of combat types, involving the majority of deployed force elements in action, commanded by the majority

of officers are in fact tactical activities, senior commanders are arguably becoming ever less capable of tolerating tactical error or inability in subordinates. We would perhaps do well to heed examples such as American tactical shortcomings in Somalia as both a chilling confirmation of this comment and an unambiguous, prophetic warning. More to the point, it could be argued that such warnings have already been issued: in the echoes of a blunt comment from one of the submissions to the RODC;

*One of the major differences perceived of the command environment of the future battlefield is that commanders probably will not be permitted the luxury of even one major tactical or military-political error: it will undoubtedly be costly and most probably terminal.*

(Australian Army, undated, 45)

Thus, whilst the need for officers to have an academic education may well have increased, the requirement for them to be highly trained and in particular, tactically competent has certainly not diminished. Are they receiving sufficient opportunity to dispel the emergent concerns expressed above?

### **Does Tactical Understanding Come Second?**

Butler (in Smith 1985, 111) remarks that if a junior officer is to master tactics and military administration, followed by a rigorous strategic development in mid career “there would seem to be little time for the outstanding officer to be involved with other than his (sic) military studies, practice and development, and his (sic) academic program must be directed to that aim”. However, trends in the intervening period suggest the converse has actually applied. At the very least, the lack of coordinated contemporary study into military training until 1999, implies that the priority for officer development had been directed towards academic education. The RODC showed relatively low levels of academic credential in the officer corps in the late 1970s. In *The Military After Next*, 46 per cent of Army officers are recorded as tertiary qualified (Commonwealth of Australia, 1995, 107). That this figure probably dates to 1993 or 1994, suggests the figure is almost certainly now higher. The purpose of this theme is not to

discredit the value and importance of academic education, but rather to illustrate that it comes at a price in terms of resources and human capital, particularly time. It also begs the question of what officers did with their time before the advent of institutionalised encouragement of the pursuit of higher education. Lastly, it makes it evident that officers appear to have a clear understanding of what they require professionally in terms of tertiary education. The question remains however, whether they have as clear an understanding of what the Army expects them to know militarily.

On the strength of the reviews and studies since the RODC, they could be excused if they did not. They are required to attend the courses mandated by the RODC, but a range of circumstances limit the opportunities outside of these. The Australian Army manual on *Command and Control* (Department of Defence 1991, 2-9) states that “responsibility for developing the skills and characteristics relevant to command (which clearly requires individual tactical competence) devolves essentially to the individual and his (sic) commander”. This contains the inference that officers ostensibly need to train themselves (in tactics), or be taught by commanders who presumably have also taught themselves. The highly commended performance of Australian troops in Cambodia, Somalia, Rwanda and Timor stands out in stark contrast to this criticism. But with the greatest of respect to those involved in these deployments, barely a single incident involving the exchange of fire could be considered to have raised beyond the level of a duel. The excellent performance of the soldiers mirrors comments addressed to the RODC years earlier that “our Army probably enjoys a reputation for competence in action at sub-unit level” (Anon, undated, 6) but it does not indicate that the tactical expertise of the officers was severely tested.

Thus, while the various reports, studies and reviews could not be said to have unilaterally or intentionally ignored the issue of tactical understanding, they do infer the existence and depth of the previously mentioned “culture of assumption”. They rarely move beyond the generic with regard to tactical understanding and

where they do, contradiction or ambiguity often follows soon after. Amongst the other examples already considered, this suggestion is well exemplified in one of the more recent documents available. In *Preparing Future Leaders: Officer Education and Training for the Twenty-First Century* (Smith 1998, - a compilation from the Chief of Army Exercise in 1997) McLachlan (xi) comments that “Army training and education must give priority to the skills needed for command in battle” yet on the following page under the heading “Education and training priorities”, the five priorities indicated (expertise in Asian and Pacific affairs, language skills, strategic and defence concepts, developments in military technology and management expertise) could be argued to have, at best, indirect *battle* utility and quite frankly, questionable value for *most* officers. Moreover, if they are to be assumed as a “framework” necessary for higher level command in battle, their validity as *priorities* is even more doubtful as few officers actually reach such a level. This can be contrasted against Hickling’s highly pragmatic view (also in Smith 1998, 45) that “Above all else, we need as the battlefield leaders of the future people who know how to win the fight”. The question is whether the so-called priorities enable this objective or whether they actually constitute a more accurate example of “the *extra* requirements for modern commanders (which) often overshadow the *basic* requirements” (Homer in Smith 1998, 103).

A number of themes and issues emerge from the literature examined.

- First, tactical competence *is* expected of officers but the debate of what this specifically means and entails remains limited. If the RODC can be considered to have most clearly identified tactical knowledge as “critical”, the emphasis on its importance appears to have degraded over time. The reasons for this degradation are not overtly evident in the literature and support the suggestion that competence is assumed.
- Second, the training and education liability for officers is vast, complex and still being charted and there is the appearance of a contest between the two requirements. This

has remained the case since at least the time of the RODC.

- Third, the combination of competing requirements in general and the paucity of debate on tactical training in particular may have contributed to what appears to be an organisational emphasis on officer academic education over training.
- Finally, a range of gaps is evident in the literature relating to tactics e.g. inconsistent definitions and vague articulation of the training required to meet the perceived need. A further curio is the lack of identification why standards have previously been found wanting (whether this has changed) and why the responses to the RODC surveys on tactical issues were so poor.

A combination of the above could be said to constitute an environment in which tactical understanding might indeed be in decline, though can this plausibly be measured? The question remains: where, how and exactly what, are Army officers being trained in in terms of the tactical skills they require to win future war? The “what” aspect is unfolding through the ongoing work on competencies referred to earlier but in the absence of a device for the measurement of tactical understanding its analysis remains uncomfortably imprecise. If “the future battlefield” literally appeared tomorrow how well prepared would the officer corps be? It seems that perhaps the best way to answer such questions is to direct them to the officers themselves.

### The C&SC Interviews

At the end of 1998, this was done with 22 volunteers from the class at the Australian Army Command and Staff College who were interviewed on the subject of tactical understanding. Interviewees were selected on the basis of their availability for interview and the desire to incorporate officers from a variety of corps, backgrounds and gender. Twelve of the group had operational or UN service and 18 had tertiary qualifications or study in progress prior to attendance at C&SC. The group also inadvertently included two qualified tactics instructors. In addition to the original volunteers, approximately ten other officers separately indicated that they were happy to be interviewed

if further subjects were required however none of these officers was interviewed as saturation of the interview questions was evident at the time further interviewing was suspended. By virtue of completing C&SC this group technically became as *formally* qualified (tactically), as any officer of their rank (or above) who has not attended either the AOC or a higher defence college *with a tactical component* within its syllabus. Interviews varied between one and two hours and in some cases there were numerous follow-on questions.

### Interview Themes and Deductions

The interview responses delivered a range of themes which illustrated tactical understanding as intrinsically difficult to acquire, develop and maintain because of the complexity of its technical, interpersonal and conceptual requirements and the limitations inherent in the current training regime. Tactics was defined with relative uniformity and although there were various interpretations of its constituent elements there was clear consensus that the most important aspect in understanding it was practice, in whatever form. For the Australian Army like all others, this is achieved through a combination of individual study, unit training and experience, and formal courses. Australian doctrine for command, (Department of Defence 1991a, 2-12) indicates the latter to be the “junior partner”. What many of the documents studied earlier reflect is the assumption that this system is intact. What the interviews in fact suggested is that formal courses carry a disproportionate weight of the training liability and that the system is arguably becoming dysfunctional as a result. This is due to a wide range of factors, however those listed below can be considered identifiable as the key variables responsible for the existing standard:

- The requirements and standards for tactical training are inadequately articulated and essentially unmeasured. For this reason, in conjunction with the competing requirements of higher education and the more readily measurable outcomes of routine daily administration, a significant number of officers are probably unaware of their responsibility for self-development in this fundamental professional subject. They are

thus unlikely to know what gaps exist in their knowledge, may not know how to close them and have no imperative to do so. The lack of a program beyond the Army Reading List accentuates this, as does the low signature of professional debate of tactical issues in the officer corps.

- The extent of officer tactical training in units varies markedly from very good to non-existent. In general, its practice is low, perhaps very low. This is ultimately due to the emphasis placed by commanders and varies in accordance with competing requirements, personal interest and ability, the assumption that field exercises meet the need, or the belief that courses are the primary medium. That so many of the interviewees emphasised courses as the main conduit for their knowledge, alludes towards the extent of the latter but does not diminish the effect of the others.

### Effects on the Training Environment

These aspects place great strain on the formal course training environment. In conjunction with what can be lengthy gaps between courses, the lack of systematic preparation for them ostensibly forces a revisionist approach. That they are so short comparatively (see Figure 3), implies that they are also therefore either compressed, or failing to teach the range of subject matter to the depth repeatedly highlighted in contemporary literature as being necessary for contemporary battlefield commanders. It is difficult to decide which of these options is the lesser evil. Even worse to consider, is that both might actually apply. Compression and lack of depth could variously result in high tempo subject throughput for some and boredom for others. Some students would find the environment highly intimidating and something to be endured. Such experiences emerged not infrequently from the interviews. Others (as mentioned) would be bored, annoyed by the lack of challenge and at least subliminally seeing the average student as “a sea anchor” who had not prepared themselves. Subject to the quality of the instructional staff, the potential therefore exists for both “types” of student to become highly frustrated. To whatever degree



	LT	CAPT	MAJ	Remarks
Australia		5	4	Intermediate Staff Course, Intermediate Operations Course.
Canada	8	11 16		Intermediate Tactics Course (4 wk self study concluded with tactics and a logistics exam as prerequisite to 4 weeks residential), Canadian Land Force Staff Course, CLF Command and Staff Course (approx 70% of officers). Approx 40% go on to Joint C&SC.
New Zealand	6	7	12	Operational Staff Course (4 wk self study and 2 wk residential), Grade 3 Operations Course, Grade 2 Operations Course. OEB determines selection for C&SC and sub-unit command.
	Promotion Exam		OEB	
United Kingdom		17		Junior Division Staff Course (preceded by approx 8 months of self study. Concludes with the exam noted which influences staff college selection and promotion to Major).
	Promotion Exam	Promotion Exam		
United States			6	The US (Army) approach does not readily compare as the emphasis appears to be on lengthy specialist (corps) courses rather than all corps training until officers attend staff college.

**Figure 3** – *Comparative All Arms Training (in weeks)*

this scenario might apply, the course learning environment would be compromised.

### Emphasis and Importance

Overall, despite some views to the contrary, a theme emerged of “perceived” rather than “actual” organisational emphasis and importance being placed on tactical training and understanding. This was evidenced by the comments from interviews on the absence of measurement, guidance and unit-based action already mentioned above. To these can be added the degree of political and organisational assumption identified previously. Moreover, recent policy shifts towards a more combatant heavy Army might logically imply a corresponding increase in training. Whilst this might yet plausibly devolve, the “stripping of Training Command” and reduction of some courses were a more obvious and common

impression amongst the interviewees. In the absence of actions above duel level or the benefit of a battlegroup or formation level CTC, it is not possible for the veracity of the assumption to be validated. Rather, it is an unknown, which can only be determined by exposure to one of the above or further research of the type begun by this study.

### Sufficiency and its Redress

It is therefore contended that Australian officers probably receive insufficient tactical training. Investigation of comparative all arms training up to the rank of major in fact suggests that the Australian Army conducts less, and in some cases significantly less individual training than “comparable” armies. Confirmation by examination and use of these as a barrier to higher promotion or attendance at subsequent courses is commonplace elsewhere, and

commanding officers are ultimately held responsible for the preparation undertaken by their officers. A broad comparison is shown in Figure 3 of the number of weeks spent on all arms courses which are either generally or exclusively staff and operations based, prior to attendance at Command and Staff College.

That a number of “alike”, potential coalition partners spend more time in all corps training and appear to be more stringent in their measurement of it does not invalidate the Australian approach, but it clearly accentuates the need for all the tiers of the Australian system to function effectively. However as already suggested, the evidence implies that they do not. As a minimum, the correction of these aspects would make a substantial difference to the standard that could be achieved in schools even within the length of existing courses. This leads to the conclusion that the current training regime does have the ability to redress the deficiencies identified thus far. A number of detailed recommendations are offered shortly of how this can be achieved and enhanced. Ultimately, the culture must accentuate the responsibility of the individual to the team by self-preparedness and awareness and the responsibility of the team (i.e. the Army) to the individual by providing discrete guidance and unit-based challenge, in addition to stimulating and demanding courses.

### Training Methods and Mechanisms

Currently, it is probable that the overall all corps tactical training of Australian officers is neither as effective or efficient as it could be. The macro reasons for this have been given above. The micro reside within the institutions themselves including the combined effects of compression and marked variation in the professional knowledge of students. These place challenges on staff which are themselves a training liability. Yet, and despite the conduct of in-house training at the respective institutions, there is no longer any course that formally teaches potential instructors how to construct a TEWT, one of the main instructional devices in the Australian Army that formally imparts tactics training. By comparison and albeit dated to 1990 (Anon, undated-b), the German Army Tactics and Logistics Instructor Course was six weeks

long. Before its demise, the discontinued Australian equivalent was 16 days. Such discrepancies, let alone that the course no longer exists are further confirmation of a lack of emphasis and of the degree of assumption. In conjunction with the tempo within training institutions, they may also increase the temptation for old training to be repeated rather than new training being developed.

The effectiveness of the TEWT and other training methods depends above all on the enthusiasm and knowledge of the commander or instructor who leads them. Interview responses suggested that this could be significantly enhanced with every one or more of the following conditions that could also be achieved:

- When the entire group contributes (to discussion).
- When the environment is sufficiently de-stressed to optimise performance.
- When the activity is two sided.
- When the activity can involve *physically* walking through something that has been discussed or developed in a theoretical sense.

Australian TEWT method frequently involves only one or two students presenting their plan. The degree of anxiety that this can cause can be acute in officers with a limited experiential base or inadequate preparation. It is also common to seek a weak plan in order to demonstrate lessons. This is driven by time constraints and can be a deflating experience for the individual concerned no matter how skilled the instructor or forgiving the peers. If it occurs repeatedly it can destroy confidence and the desire to learn whilst encouraging the wish to avoid or escape. Concurrently, a capable individual may miss the opportunity to practice or exhibit a skill that is already largely consolidated. This can lead to frustration or at worst, contempt for the less developed. Each of these equally destructive outcomes could be pre-empted by a more robust approach to preparation and better use of graduated learning, including the opportunity for remedial training if required in order to build knowledge and confidence. However this requires time, a variable that is simply not available in the current courses. Simple logic suggests that without individual preparation, unit

training or longer courses, there will be no improvement. The disparity in student understanding and tempo of courses also leads to another frequently mentioned complaint of method in terms of the scripting of activities. In units or on exercise this can result from resource constraints. On courses it can also be the product of the assessment system and the way that the students approach it.

A further aspect constraining the more effective use of tactical training as a developmental tool is the relatively linear application of available methods and the recent trend in the all corps courses towards staff-based solutions, rather than individual work. With regard to the former, properly used the TEWT is an excellent tool. If combined with manual tactical decision games (TDGs) and computer-based training the only thing preventing a combination of methods is the will and time to do it. At least one unit has created its own “battle lab” through the drive of its commanding officer and some creative accounting. This should be the norm rather than the exception. The second aspect is the staff trend. The Australian Army has recently adopted a new Military Appreciation Process, a staff-based decision-making tool. This has resulted in the all corps schools reverting from instruction in an individual decision-making tool to a group one which intrinsically relies on the competence of individuals in something which, in the main it appears they are now no longer practiced in. This is a matter that requires urgent investigation. It might potentially be leading to a reduced ability or confidence in individual knowledge and decision making.

### Assessment

The above factors appear to contribute to what seems close to a phobia of assessment and a controlled but deep-seated fear of appearing to fail in front of peers. Only two interviewees were prepared to discuss this at length, one seeing it like “a cancer”, something we don’t talk about. Several others did so to the extent they felt possible, for example, “I’ve exposed all my vulnerabilities. You’ve got my opinions good or bad, but you’re the first person I’ve actually ever told my opinion”. There was sufficient weight of evidence in the group to suggest that these were

not isolated crises of confidence, but rather the products of a system with very high organisational expectations and demands, and insufficient time and training with which to meet them. This raises an interesting point about measurement. The RODC dismantled the former measurement system of promotion examinations because they were administratively inefficient and organisationally perceived as ineffective. Some of the submissions refer to staff at the Tactics Wing at Canungra also arguing strongly for the new operations courses to be non-assessed, presumably in order to de-stress them and develop a more positive approach towards them. In his book *Maverick Soldier* (1991, 179), Essex-Clarke refers to Vietnam veterans decorated for gallantry in action, being “overcome with emotion” (in relief) at passing the TAC 5 and “failures disappear, shattered to the isolation of their rooms”. Fear of the consequences of failure in a tactical training environment and concerns about assessment are certainly not a new phenomenon. Nor should references to overseas examples necessarily be construed as a recommendation for the re-implementation of examinations. However the de-emphasis of assessment, certainly within initial all corps tactical training could be greatly enhanced if officers were better prepared prior to courses and once on them, had more time and opportunity to learn rather than worry. Whether this preparation occurs through sponsored personal study, longer courses, examinations or the tutelage of their commanding officer is irrelevant. But it must happen, and in many cases it currently is not.

### Military History

A final aspect from the interviews relates to the surprisingly high incidence of the reading of military history for pleasure. Over 20 years ago the RODC recommended that a military history program be established for officers, but this was not enacted. Interestingly, a military history reading and essay program was attempted in the early 1990s but failed because it was insufficiently supported through the chain of command and appears to have been resisted for its imposition. In a culture which had grown away from the exams jettisoned after the RODC,

many of the junior officers at whom it was targeted were already busy trying to meet the competing requirement of achieving part-time external degrees under the JOPEs system. It is poignant to reflect that such a significant number of officers read for pleasure a subject that could be enhancing their tactical understanding exponentially if it was simply shaped. The US Army selectively identifies capable graduates of its C&SC and retains them for a second year at the School of Advanced Military Studies. Military history is a core subject of this course.

In sum, the key variables influencing whether levels of tactical understanding rise or decline appear to be founded on: a clear statement of the standard required, the availability of sufficient time and resources for training to that standard, the method of training and its definitive measurement against the standard. Weaknesses currently exist in each of these areas, however the system is sufficiently robust enough to redress them through re-balancing the training hierarchy.

Regrettably though, whilst the interviews tended to support the thesis that levels of tactical understanding in the officer corps are in decline, it would be inappropriate to claim that they proved it. Rather, the thesis could neither be proved nor disproved. The primary reason for this is that there is no empirical mechanism for its measurement other than perhaps war itself. However, even that the Australian Army performed well operationally in its most recent war (Vietnam) does not of itself prove what the standard of tactical understanding was in the officer corps at that time. Indeed, as shown previously, reports from the post-Vietnam era (within a timeframe when the operational experience levels of the corps would ostensibly still have been high) state that a lack of tactical understanding was widespread. Further, the official publication on infantry lessons identifies “the lack of practical tactical training of company commanders and CP staff” as the “greatest weakness” (Australian Army 1988, 6-8). These imply that despite tactical success in that conflict, the standard in the officer corps as a whole may not have been particularly high in the first place. In the intervening period, promotion exams have been discarded and the course continuum

reshaped in a system that has now been in place for over 20 years. From being one part of a three-tier system, the course continuum appears to have become the mainstay of the standard. That Australians are genuinely well regarded in a professional sense should not be diminished or made light of. At the same time, the suggestion of imbalance within the tactical training regime leads inexorably to the conclusion that whilst the current level is probably no lower, it is almost certainly no higher than it was 20 years ago. This cannot be presumed to be acceptable in a 21st century Army.

### Redressing the Problem

A range of recommendations follow as the basis of a solution to the perceived problem. These represent a minimalist option, which could be implemented over time. The suggested priorities are simple. Establish a clear objective, lead with command emphasis and mandate individual responsibility. In effect this is little beyond a more vigorous application of extant or emerging Army doctrine and methods. The remaining recommendations are designed to accentuate an increased organisational emphasis on tactical understanding, particularly at the ranks in which it is mainly experienced or taught. Beyond the recommendations are suggestions of how (in terms of implications for policy and practice) they might be enacted.

### Specific Recommendations

It is recommended that the officer tactical training architecture needs the following:

- A detailed and clearly articulated, widely disseminated and physically attainable statement of professional requirement for the level of tactical understanding expected of the members of the officer corps.
- Emphasis placed on the conduct of tactical training for officers in units which is personally conducted by the commanding officer of that headquarters, unit, branch or section. Commanding officers at all levels must take a more active role in tactical training.
- An individual professional development (IPD) program tailored to rank designed to keep officers up to date and in particular, to

prepare them for their next course. This program needs to be sponsored by all corps schools and supervised by commanding officers.

- Allied to the IPD program, a voluntary military history course should be initiated at graduate or post-graduate level, similar to that at the US School of Advanced Military Studies. The programs available could be a Graduate Diploma in Military History or Graduate Diploma of Education (Military History). The course could be open to all members of the ADF, regardless of rank or Service.
- De-emphasis of the requirement and incentive for officers below the rank of major to seek academic qualifications unless specifically required by their employment. Concurrently however, a scheme to allow accelerated full-time degree courses for officers at or above major should be investigated. There should be a mechanism for case by case exception to this philosophy, but the organisational main effort should be clearly articulated as operational skill.
- The establishment of a live *battlegroup* level combat training centre and the initiation of an all corps tactics course for all commanding officers to replace the current AOC.
- The re-designation of the AOC as a truly “advanced” course attended selectively by those officers LT-MAJ who are identified on their ISC or IOC as above average in their staff and operational skills. A mechanism must be established to encourage excellence. No rank should be worn. The course should be structured to qualify those who attend it as Tactics and Logistics Instructors.
- The Tactics and Logistic Instructor qualification should become part of the C&SC course for any officer who has not previously completed it. As a minimum, the C&SC curriculum should include training in how to construct effective *tactical* training at unit level.
- Urgent investigation of the balance between staff and individual based decision-making process training and adjustment as necessary

to ensure that sufficient individual training is being imparted in both.

- Further research to establish definitively, the extent, type and frequency of tactical training that officers are receiving in units.

### Senior Commanders

Commanders at all levels need to take a uniformly more active role in accentuating the importance of tactical training and understanding. The view expressed of senior officers in the interviews was generally negative. Whether deserved or not, this was the majority perspective and if considered to have any weighting, reinforces the need for commanders to be active as suggested above. Some senior commanders were spoken of by name very positively. Albeit that they were themselves officers of different ranks within the grouping “senior officers”, the characteristics identified as respected in them included knowing what they were talking about, willingness to involve subordinates in problem solving, personally involving themselves in the solution of tactical problems and the informed discussion of tactical issues and theory with subordinates. Senior officers at the highest level need to start asking subordinate commanders difficult questions about the extent, nature and frequency of the non-course or exercise-based tactical training that is being conducted for officers in headquarters, training establishments and units. Senior officers need to place high priority on the integrity and currency of the doctrinal hierarchy, which was seen as dysfunctional by some officers. Senior officers should act on or direct action on the recommendations identified above.

### Commanding Officers

Some commanding officers have probably received insufficient grounding in tactical understanding but are themselves in turn providing subordinates with insufficient tactical grounding. The development of subordinates is a command responsibility that cannot be left to the course continuum nor to the individual alone without detriment to the Army and to the officer. This was evident in the interviews and is probably still the case. Commanding officers must be supported in accepting greater

responsibility for the development of the tactical skills of their subordinates. If unit tempo or resources preclude this the higher commander should be pressured for their reduction and increase respectively. As a minimum, commanding officers should have each officer present their proposed annual individual development program for discussion, and should TEWT with their officers at least once per six months. Every unit should have a qualified tactics instructor.

### Officers

Individual officers have a responsibility for personal professional development of which it appears many may not be aware, particularly junior officers. Pending issue of an official statement of professional requirement for the level of tactical understanding, officers should prepare an IPD program and discuss it with their immediate superior. Officers have a responsibility to self prepare prior to attendance at any course. Officers have a responsibility to directly supervise the tactical training and development of tactical understanding in their subordinates.

### Instructors

Instructors have a responsibility to be expert in their subject matter, knowledgeable in instructional theory and skilled in its practice. They need to be mindful of the current disparity in levels of preparation and understanding and appreciate the reasons for this. They need to be prepared to modify methods in order to maximise outputs in tactical understanding and if necessary, to seek opportunities for remedial training outside the confine of the course dates. Thus if required or recommended, a student should be able to remain behind for additional training after a course has technically finished. Instructors should encourage the use of multiple methods in training institutions. In particular the use of two-sided activities, TDGs and CBT should be increased. The characteristics identified by the interviews as most important in instructors were subject knowledge, interest and enthusiasm.

### Doctrine

Tactical doctrine forms the basis of tactical understanding. On the basis of short courses, an

apparently low incidence of unit tactical training and the absence of any test, it is suggested that organisationally, the level of familiarity with tactical doctrine is probably low. It is recommended that in addition to LWD 1, every officer be issued with a personal hardcopy of MLW 1.1.2 *Command and Control*, MLW 1.1.4 *Formation Tactics* and MLW 1.1.6 *Administration in the Area of Operations* or, as doctrine evolves, with the documents that replace them. Every officer should be expected to know and understand these documents.

### Conclusion

This article has sought to analyse the status of tactical training in the Australian Army officer corps and review its effectiveness. On the basis of its discourse, it concludes that whilst it is intuitively held as important, the status of tactical training in the officer corps is low. This is the sum of complex issues, the intricacies of the subject itself and the unrealised extent of the political and military assumption that has occurred. As mentioned above, the dissertation cannot establish definitive evidence of a decline, however it can and has identified matters that should reasonably be held in concern. The first of these is that the standard of tactical understanding in the officer corps is not empirically measured to the same degree as in comparable armies. The second is that the formal course continuum appears to be carrying a disproportionate weight of the training liability and the third is that the length of those courses is less, in some cases considerably less, than comparable armies.

The article has investigated what several of the interview subjects described as “like a dark [i.e. forbidden] topic”. Army needs to research it further, and should act without delay. In the interim it remains interesting to consider whether there is any other subject currently being studied by officers as part of their professional or academic development which has the type of benefits identified by the interviewees of this study as gained from their tactical training: self-confidence or self-awareness; problem solving or decision-making skills; corporate insight; peer knowledge; the ability to win and feedback. To reflect upon these at any length is to wonder whether possibly, as an Army, we are under

utilising one of the most valuable vehicles in our learning inventory.

*No study is possible on the battlefield; one does there simply what one can do in order to apply what one knows. Therefore, in order to do even a little, one has already to know a great deal and know it well.*

Marshal Ferdinand Foch 1919

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# Culture and Organisational Behaviour at Australian Defence Headquarters<sup>1</sup>

By Nick Jans and David Schmidtchen

*Centralisation has given rise to a pronounced lack of corporate ownership and responsibility among the three Services. There is a strong propensity to transfer the problem to the centre and blame senior personnel (generally Canberra-based personnel, civilian or military) for their lack of understanding and affinity with the challenges faced by those at the command or unit level. The Services have become too detached from the ADF's human resource processes... This has created an adversarial environment in which the Services seek to maximise their positions with little apparent regard to the overall needs of the ADF, which in turn promotes a lack of trust between the Services and the centre.*

Review of Australian Defence Force Remuneration<sup>2</sup>

## Leadership and Organisational Performance

For the last 20 years or more, Australian military organisations consistently have performed well in operations and at a mediocre level (at best) in tasks of higher management and strategic leadership.

For example, in early 2000, in the very fortnight that the first large contingent of Australian troops returned triumphant from East Timor, the Secretary of the Department of Defence publicly flagged what he termed a “credibility problem” associated with the “widespread dissatisfaction with Defence’s performance in Canberra – from ministers, central agencies within the public service, industry, and even from within the Defence organisation itself”. The Government, the Secretary explained, was extremely dissatisfied with continued management problems in the Australian Defence Organisation. He noted in particular the problem of leadership, saying that “often it seems that wherever one sits in the hierarchy, all the problems besetting the organisation in terms of its management and leadership come from higher up the ladder”.<sup>3</sup>

A stark example of the consequences of this “leadership problem” is seen in the Defence Efficiency Review, visited on the Defence Force in October 1996. Tellingly, the Defence Efficiency Review’s chairman and members were mainly non-Defence people. The major shake-up they advocated was an example of what

is known in contemporary management literature as “Dictatorial or Forced Transformation”. This approach – in which radical, speedy and unpopular change is used to restore business viability by major changes to organisational and career structures and downsizing/retrenchments – had been applied extensively in the Australian business sector in the 1980s and 1990s.<sup>4</sup> Now it was Defence’s turn.

The Defence Efficiency Review report was not a particularly astute document. Its major philosophical underpinning – that military culture can be changed by reorganising and changing the method of resource allocation – was naïve and misguided. But we *can* thank it for one particularly telling observation, when it contrasted the “can-do” professionalism of Service units with that of the staff, especially that in Canberra. “The puzzle”, the DER remarked, is “why these same people, when moved to different positions or promoted to higher levels, tolerate what everyone we spoke to asserts or concedes is a significantly sub-optimal system”.<sup>5</sup>

This article addresses this “puzzle”. In what follows, we discuss the culture of the Australian Defence Headquarters (ADHQ) work environment and its effect on organisational behaviour. As noted above, the then Secretary of Defence appeared to attribute most of Defence’s problems to a culture of “learned helplessness” and of chronic sub-standard performance to

leadership. This article shows that he was only half right.

### **Culture, Organisational Behaviour and Defence Headquarters**

Cultural features shape behaviour and influence decisions even when (as is typical) the vast majority of members give them no conscious thought.

The three Services of the Australian Defence Force have developed distinctive cultures. These differ in some of their specifics but, institutionally and in the motives of their members, the Services are much more alike than they are different.<sup>6</sup> We see this particularly in the contrast between the culture of the mainstream military and that of the Defence bureaucracy.

Each of the three Services has what scholars call a “strong” culture because each has a strong sense of identity and clear and measurable functions. In contrast, the identity and functions of “Defence” are less clearly defined. As an institution and as a “culture”, it is an uneasy amalgam of the ethos of the Australian Public Service and the three Services. A large and special pinch of spice is provided by its history, as it developed from four related departments (Defence, Navy, Army and Air Force) to be a single department under the iron leadership of the late Sir Arthur Tange.

Newly arrived officers often find themselves confused and disoriented by the significant differences between the mainstream military and Defence Headquarters. Few of the professional competencies that made for career performance in an officer’s early career – decisiveness in decision making, authority in leadership, the ability to adhere to doctrine yet use initiative – have the same utility in Canberra. In mainstream units, officers give orders; in Defence Headquarters, they must often negotiate, frequently in situations that they don’t fully understand. In the unit, even if they had to deal with superiors and rivals outside the unit, at least they feel they knew how these superiors and rivals thought and what their values were; in Defence Headquarters, most of the civilians they deal with have equal or greater authority, usually more bureaucratic savvy, and seem often to have a different agenda which is not always clear.

“Rank” or “job level” or even a job title ceases to be any guide to who is influential and who is not; in meetings they are required to cross verbal swords with younger, often sharper, often female counterparts, about whose position and role they may be unsure.

Given such differences in working environment, it is little wonder that the average Service officer is professionally and psychologically unprepared for the differences between the mainstream ADF and ADHQ. The priorities, the style, the general “script” for the daily routine: all are so different that it takes some time for them to realise the degree of difference. Many officers attempt to compensate for their disorientation by restructuring the new and unfamiliar problems to conform to problem situations met in their earlier careers. Usually, these attempts take the form of attempts to increase order, focus rationality and improve staff duties. Such an approach gives rise to elaborate networks and hierarchies of directorates and committees, and usually vain attempt by senior officers to “be across” a range of complex and often nebulous issues by an intense form of “busyness”.

There are, it is true, many officers for whom Defence Headquarters is a challenge to be relished; even if they don’t become as skilled in the ADHQ as they did in their mainstream units, at least they develop some appropriate competence. But the irony is that few advance their careers by doing so. The quasi “up or out” policy that applies in senior officer career management policy means that there is no benefit of remaining in the bureaucracy and becoming accomplished in its ways. Indeed the opposite is the case. To advance, one must command or at least hold senior staff appointments in a series of headquarters. For all but a few, to remain in the Canberra bureaucracy in a specialist functional field is a serious career disadvantage – indeed, most see it as a prescription for career plateauing.<sup>7</sup>

A generation ago, the Public Service executive group in Defence provided some personnel continuity and corporate memory, but this group is now increasingly driven by a generalist career philosophy every bit as powerful

as that in the Services. For the last two decades, senior Public Service careers have been shaped by the development of the Senior Executive Service. This SES philosophy “is about introducing flexibility, improving management, *increasingly the mobility of senior executives* and establishing and cultivating the idea of a coherent and clearly identifiable group of senior executives for various purposes”.<sup>8</sup> Those who staff the higher levels of the Public Service have been encouraged to think of themselves as employable across a range of agencies. Over-identification with one agency is no longer in an ambitious individual’s long-term interests. Recent SES job rotation across the Public Service has thus been almost as high as that of military officers.<sup>9,10</sup>

Some commentators have suggested that the disadvantages of this practise could be countered by having would-be Defence executives attend the lengthy mid-career courses set up for their military counterparts.<sup>11</sup> However, it would not be surprising if the contemporary Defence Public Service officer with career ambitions took precisely the opposite view. They have become analogous to the ambitious military generalist, for whom (as we saw earlier) excessive time in a “non-core” staff area such as personnel and materiel is seen as a handicap rather than an asset. Thus the SES career system dictates that the role focus of executives is as much upwards and sideways (to the Minister and to related agencies) as it is downwards (to the “general public” or constituency that an agency services). Hence, as Neil James suggests, current and would-be senior Public Service officers in Defence see attendance at military staff college and the like as “not... important, and rarely essential”.<sup>12</sup>

### **“Paralysis by Analysis”**

The symptoms of the Defence Headquarters problem were enunciated by Secretary Hawke mainly as political stakeholder dissatisfaction with lack of responsiveness, poor policy development, and lack of empathy with the broad Defence Force constituency. There are a number of reasons why these problems exist in Defence Headquarters.

In what follows, we use the Personnel field as the example but other areas provide equally pertinent examples.

Defence Headquarters has traditionally been inclined to subject major issues to intense scrutiny. This applies especially in personnel matters. As a consequence, impending action on personnel problems is often put on hold until a fresh strategic level study is done or an implementation team reviews the most recent one. Take, for example, the many major studies on personnel that have been done in the last decade-and-a-half. Since the Australian Parliament’s Cross Committee Report in 1987 made recommendations for change to personnel strategy,<sup>13</sup> a number of major studies of personnel strategy have been mounted within the Defence Force. The Glenn Review had the highest profile of these, and the most resources, but Glenn’s impact was no greater than the token response given to Cross. Most recently, the 2000 Posting Turbulence Review spawned the Action Plan for People, whose recommendations were remarkably similar to those of the Cross Report. In late 2000, the ADF Remuneration (“The Nunn”) Review was launched with a brief that took six months to complete<sup>14</sup>. During this time, no major personnel initiative was allowed to proceed.

For an institution that claims – correctly – that its most important resource is its people, the Defence Force has done remarkably little to correct long-standing problems. Despite the many relatively minor programs that have been launched and the many glossy publications that have been printed, the only major personnel initiative from the Services in the last two decades was the introduction of a new superannuation scheme. And, ironically, this new scheme did nothing to assist the Services in tackling retention problems in a turbulent economic era and arguably even impeded them in doing so.

All this is illustrative of an implacable pattern of “paralysis by analysis”. Why is this pattern repeated so often? What is it about the Defence institution that makes it so difficult to be decisive about personnel? Defence *can* be decisive about new weapons systems (e.g., Collins Class submarines), new information technology systems (e.g., PMKeys), training (e.g., the Defence Force Academy, the Australian Defence

College, and the Army's Common Induction Training) and reorganisations (e.g., the Defence Reform Program). Why not a similar approach to Personnel?

For the explanation, we must look at the issue from four perspectives: the political, the organisational, the cultural and the personnel management system. Each of these four perspectives would explain Defence's inability to be decisive and innovative about personnel with an argument something like the following:

- **The political explanation.** The "political" part of the explanation lies in the complex institutional and political system of the Department of Defence and Defence Headquarters. There are a large number of stakeholders with significant institutional power within a single bureaucratic location. It is perhaps a measure of the pervasive power of the personnel function and the way it cuts across every operational and support activity, that every time a major change is proposed it must be re-studied again and again to ensure that it meets the needs of (or poses no threat to) every stakeholder.

- **The organisational explanation.** The "organisational" part of the explanation is simply an illustration of the inertia of bureaucracies. Organisations that lack immediate and vital goals and operate in an essentially uncompetitive environment change slowly. Since the Australian Defence Organisation has few incentives to change in terms of pressing "market" forces, change tends to come about largely through the initiatives of senior leaders. However, such leaders set priorities based on both their reading of the issues and the time they have available to steer any changes. Both will vary markedly between different players. And both are strongly but subtly influenced by cultural, career and climate factors.

- **The cultural explanation.** From a cultural perspective, most of the examples mentioned earlier (in terms of changes in weapons systems, training, etc) are activities that are close to the Services' "core business". Senior officers feel comfortable with such programs. They understand weapons systems and training because these have always been part of their careers. However, very few have a sophisticated

understanding of personnel issues, because their previous exposure to personnel is invariably in terms of the mechanics rather than strategic aspects of management. Most give way to the human reaction of giving attention to the things that are familiar and urgent, and of keeping the unfamiliar at arm's length if possible. The irony is that their decisions about weapons systems, training and the like have significant personnel implications. However, because such ostensibly "non-personnel" projects are led by people with little personnel expertise, these implications tend to be overlooked until they are manifested, some time later (often years later), in problems of recruitment, retention, morale and cost over-runs.

- **The personnel management system explanation.** Finally, as we noted earlier, the military career system gives senior and middle-level Defence Force officers in Canberra what is really only a fleeting exposure to the personnel function during their careers and then requires them to make decisions on crucial long-term personnel programs. To exacerbate the situation, such decisions are often required from officers who have had only a brief learning period in their respective staff appointments. And, as we have seen, for Public Service executives, the situation is little different.

### What to do about all this?

Everyone loses from these deficiencies in organisational behaviour, and it is everyone's interests to understand and focus on their causes.

The problem is that these issues are only partly being addressed by the current Defence leadership organisational renewal program.

Any serious attempt at reform must address – and as far as possible, do so simultaneously – three core elements of a renewal strategy.

Firstly, career development and career management polices must be reformed: for the Services certainly and possibly also for Defence public servants. It is no longer acceptable for crucial short- and long-term decisions about strategic capability factors to be made by people with little functional expertise in specialist staff areas.

Secondly, the leaders of staff units must become more adept in the way that they manage organisational climate. Recent research in

Defence shows that managing the staff/policy “knowledge organisation” requires a different approach to that of conventional military units. Senior leaders need to become cognisant of this and of how their leadership/management style should be varied in such situations. The need for better functional expertise among senior officers and greater appointment stability for most such leaders is especially pressing.

Finally, changes to executive training, structures and organisation are needed to support the first two of these reform elements. Traditionally, a training-structural-reorganisational approach has been the Australian Defence institution’s preferred approach to performance problems. However, used alone, this is not a viable strategy, and is unlikely to have little real effect on the underlying issues.

Above all, Australian Defence Organisation leaders must acknowledge the problem in all its dimensions. The problem is not just a leadership issue (which are in any case is a symptom as much as a cause) but stem from the way that the major structural reforms of the 1970s, 1980s and 1990s were put into effect.

### Conclusion

A quarter of a century ago, the Army’s Regular Officer Development Committee flagged the need to prepare officers properly for duty in the Defence bureaucracy. Today, little has changed, with the military institution continuing to tolerate a situation that is costing it dear. None of the Services has done itself any favours by its approach to staffing at Russell. Not only do senior and middle-level officers often lack functional expertise but many lack any sense of the theory of public administration and the way that government agencies actually get things done. This has little to do with the command skills and commitment such officers bring to the staff role. The vast majority come to such roles filled with enthusiasm and vigour. Task-focussed and trained to measure their performance and effectiveness in real time, they itch to make a difference. When they join Defence Headquarters, however, they are pitched into an unfamiliar arena, with the near-certainty that they will be posted to another appointment within two years (of unknown nature and location), and the

certainty that many of their immediate team will change in that time. After a series of such postings, where they achieve little, often ground down by the bureaucracy and inertia of the system, the behavioural response of many is simply to “survive”. It is little wonder that the well-publicised “learned helplessness” syndrome often prevails.

As we noted in our introduction, Secretary Hawke appeared to blame leadership for most of this “learned helplessness” and chronic sub-standard performance. This article shows that he was only half right. These are symptoms only, with the causes going deep into the military and Public Service cultures and their respective sense of their “real” role and how people should be developed. Until these issues are addressed, the symptoms will continue. But how much longer will these be tolerated by the Government, the public and – above all – the uniformed constituency?

### NOTES

1. This article is drawn from Chapter 8 of our recent book, *The real C-cubed: culture, careers and climate and how they affect capability*, by Nick Jans with David Schmidtchen, Canberra Papers on Strategy and Defence No 143, Strategic and Defence Studies Centre, Australian National University, Canberra, 2002.
2. Department of Defence, *Review of Australian Defence Force Remuneration, Report* (The Nunn Review), Canberra, 31 August 2001, p. 9.
3. See: “Battle waging in corridors of Defence”, *The Sydney Morning Herald* editorial of 21 February 2000; Mark Dodd, “Mission accomplished”, *The Sydney Morning Herald*, 26 February 2000; “Home are the heroes”, *The Age* editorial, 26 February 2000; Defence Secretary’s text at the National Press Club, Department of Defence website; Peter Cole-Adams, “Defence staff jobs on the line”, *The Sydney Morning Herald*, 4 March 2000; Mike Bowers, “Emotions kept in check at Interfet ‘thank you’”, *The Sydney Morning Herald*, 8 March 2000; Michael Richardson, “East Timor peace force is held up as a model”, *International Herald Tribune*, 28 February 2000.
4. A study of Australian service organisations coming to grips with turbulent business conditions showed that this change management strategy is appropriate when an organisation is out of “fit” with its environment, when radical change is

needed to restore its viability, there is no time for extensive consultation within the organisation, and little support for radical change. The majority of organisations more-or-less successfully used this strategy to effect organisational change, in that all the subject organisations managed to survive, albeit with significant short-term costs in service quality and staff morale. See Dexter Dunphy and Doug Stace, *Under New Management: Australian Organisations in Transition*, Sydney: McGraw-Hill, 1990.

5. Australian Defence Efficiency Review.
6. Nick Jans, *Careers in Conflict: A Study of Services Officers' Careers and Families in Peacetime*, Canberra College of Advanced Education, Canberra Series in Administrative Studies, No. 10, 1988; Sigma Consultancy, Development of a career decision support system for analysis and support of HRM policy development in the Australian Defence Force, Report, 1999.
7. Nick Jans, "Options for ADF human resource management: part of the solution or part of the problem?" in *Maintaining the Strategic Edge: The Defence of Australia in 2015*, ed. Des Ball, Strategic & Defence Studies Centre, Australian National University, 2000; Nick Jans, "Rich organisation, poor organisation: Defence performance and military leadership", *Australian Defence Force Journal* No. 142, May/June, 2000; Nick Jans and Judy Frazer-Jans, "Job rotation and military capability: benefits, certainly – but is anyone counting the cost?" *Australian Defence Force Journal* No. 146, Jan/Feb, pp. 47-59, 2001.
8. John Halligan, "What is the SES Concept?" *Canberra Bulletin of Public Administration*, No 61, July 1990, 50-52, p. 50.
9. Nick Jans and Judy Frazer-Jans, *Careers and Culture in the SES*, Public Service Commission, Senior Executive Staffing Unit, Occasional Paper No. 10, December 1990, pp. 54-55; and <http://www.psmpc.gov.au/publications96/sesstatspart4.htm>.
10. Having made all these points, it must still be conceded that there is a paucity of research on APS and SES careers. This is especially true when it is compared to the volume of information on ADF careers. We may be making generalisations here but, in the absence of other research, we have little choice.
11. Neil James, *Reform of the Defence Management Paradigm: A Fresh View*, Australian Defence Studies Centre, Working Paper No 59, 2000, p. 36.
12. James, op. cit., p. 27.
13. Joint Committee on Foreign Affairs, Defence and Trade: *Personnel Wastage in the ADF – Report and Recommendations*, November 1988. (This was known in Defence as the "Cross Report", after its chairman.)
14. *Review of Australian Defence Force Remuneration*, op. cit.



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# Operational Level of War Joint Campaign

## Analysis: Allied Forces in Papua 21 July 1942-23 January 1943

By Lieutenant Colonel Chris Field

*[MacArthur's] GHQ is like a bloody barometer in a cyclone – up and down every two minutes. They're like the militia – they need to be blooded.<sup>1</sup>*

Major General George Vasey  
Deputy Chief of the Australian General Staff (later Commander 7th Division in Papua)  
27 August 1942

*If he [MacArthur] had been born in Australia and had gone to Duntroon [the Australian Army's Royal Military College], he could not have shown a higher concern for Australian interests.<sup>2</sup>*

John Curtin, Australian Prime Minister, 22 October 1943

*General Douglas MacArthur's execution of the campaign in the South-West Pacific Area against the Japanese from 1942 until 1944 was, from an Australian perspective, paradoxical. His charisma and charm initially enamoured Australian political and military leaders, but later led to distrust and disappointment. His successful campaigns through the Solomon Islands, Papua, and New Guinea provided security to Australia, but his operational plans and proclivity towards interference at the tactical level were often inappropriate. He formed a successful coalition with Australia in Papua and New Guinea, but at times treated his ally with contempt. MacArthur's paradox sets the scene for this article on the Allied Campaign in Papua, 21 July 1942-23 January 1943.*

This study separates the Papuan campaign of 1942-43 from the geographically linked New Guinea campaign of 1943-44. MacArthur and Admiral Halsey purposely linked their two campaigns in Papua and the securing of Guadalcanal in their joint determination to move the bomber line, which along with airlift capability was the Allied operational centre of gravity, forward from Australia and Port Moresby, to Buna and Guadalcanal. The Guadalcanal and Papuan campaigns represented a transition for the Allies from the defensive to the offensive phase. For the Japanese these simultaneous campaigns marked their culminating points which occurred at Guadalcanal and 30 miles from Port Moresby on the Kokoda Trail. After the successful completion of the Guadalcanal and Papuan campaigns, the Allies had established firm footholds in the Solomons and Papua forcing the Japanese to consolidate their positions

in the South-West Pacific Area by retracting their first line of defence.<sup>3</sup> This vulnerable new defensive perimeter was the last territorial frontier preventing the Allied penetration of the Philippines, and the southern reaches of the Greater East Asian Co-Prosperity Sphere.

The aim of this article is to analyse the Allied operations in Papua from the time of the Japanese invasion of Buna on 21-22 July 1942, until the fall of Sanananda to Allied forces on 23 January 1943. Emphasis is placed on Australian operations within the broader strategic and operational framework that was largely shaped by the United States. This article examines the events of the Papuan campaign, the strategic situation the Americans and Australians faced, operational level factors including geography, command and control, campaign planning, coalition and joint operations, enemy forces, and applications the campaign had for subsequent strategic Allied goals.

### Blunting the Japanese Offensives

On 21 and 22 July 1942 the first of eventually 16,000 Japanese men of General Horii Tomitaro's elite *South Seas Detachment*, which was the Japanese operational centre of gravity, landed at Buna. They proceeded to push the Australian forces south along the Kokoda Track across the Owen Stanley Range, coming to within 30 miles of Port Moresby by 17 September. Allied efforts fared poorly due to a combination of several factors: being woefully coordinated, Australian units facing the Japanese advance were too small, MacArthur's intelligence failed to recognise the significant scope of the threat, his South-West Pacific Command was in its nascence, and the Air Force command structure was not functioning properly.<sup>4</sup> Fortunately, Major General Kenney's appointment as Allied Air Commander brought dramatic improvements, and assisted the Australians in blunting the Japanese advance by attacking enemy supply lines that ran over the mountains to Buna, on Papua's north coast. Simultaneously, the Japanese were unable to reinforce their troops in Papua due to the growing importance of the Guadalcanal campaign.

This forced the Japanese to withdraw back across the Kokoda Track, under pressure from the now advancing Australian 7th Division, whose actions allowed the Allies some breathing space.

Despite losses in defence of Port Moresby, the Allies launched an operation utilising a motley amphibious fleet to secure Milne Bay, at the south-eastern end of Papua, on 25 June 1942. The predominantly Australian "Milne Force" supported by US engineers and anti-aircraft units began to establish what would be one of the great shipping and air bases in the South Pacific. This force was able to defeat a Japanese amphibious armoured-infantry force between 25 August and 7 September, the first time that a Japanese amphibious force had been defeated ashore in WWII.<sup>5</sup> This proved to be a triumphant moral and propaganda victory, helping to finally crack and tarnish the myth of Japanese invincibility.

This amphibious advance was followed by the operations near Gona-Buna-Sanananda. These were characterised by a poor Allied

appreciation of terrain, another intelligence failure which put the Japanese strength at 2,000 when it was closer to 8,000, and the inexperience of some Australian and all the American staffs which produced a long and bitter campaign.<sup>6</sup> This drawn out operation did not end in Allied victory until 22 January 1943, and included some of the most important operations and battles ever fought by the Australian Army. However, in many ways the operations were incidental to MacArthur's strategy, as they were fought in reaction to a Japanese thrust, and once they were completed the territory seized became a springboard for MacArthur to continue the offensive toward Rabaul, which he had planned six months earlier.<sup>7</sup>

### The Strategic Situation – The US Perspective

MacArthur's campaign design was shaped by the Joint Chiefs of Staff (JCS) Directive of 2 July 1942 which provided three tasks:

- Task One: seize and occupy Santa Cruz Island, Tulagi, and adjacent areas – under the control of Admiral Nimitz which became known as Operation *Watchtower*;
- Task Two: seize and occupy the remainder of the Solomon Islands, Lae, Salamaua, and the North East Coast of New Guinea; and
- Task Three: seize and occupy Rabaul and adjacent positions in New Guinea-New Ireland area.

MacArthur had the responsibility for tasks two and three, and therefore had a simultaneous challenge of dividing his forces and developing a mutually supporting campaign against an enemy who had over-reached itself throughout the Solomons and New Guinea. However, the JCS Directive was issued almost three weeks before the Japanese surprised the Allies by landing at the key Papuan town of Buna. This bold move, and subsequent aggressive Japanese land campaign, delayed MacArthur's ability to commence task two with operations against the New Guinea towns of Lae and Salamaua by more than 12 months.

The conclusion of the Papuan campaign helped shape the strategic environment that existed in early 1943, and would be debated during the Allied Casablanca Conference held in



January of that year. MacArthur's preemptive 8 January 1943 announcement that *virtual* termination of hostilities in Papua had occurred, astonished and angered Allied commanders in Papua; none more so than Generals Eichelberger and Herring who struggled to "mop up" the remaining 4,500 fiercely determined Japanese defenders at Sanananda.<sup>8</sup> MacArthur had his eye on the strategic picture in which he wanted to beat Halsey and the Marines in "turning the first important land victory of the Pacific War"; thus improving his prestige in Washington, and laying the basis for the Casablanca ratification of the 2 July 1942 JCS strategy aimed at the reduction of Rabaul.<sup>9</sup>

### **The Strategic Situation – The Australian Perspective**

The Allied failure to protect Buna and desperate fighting in the Papuan campaign shaped Australian strategic thinking in the latter half of 1942. Close Government scrutiny and attempted influence marked this campaign, unlike other campaigns in which Australia had been involved. There were a number of reasons for the close scrutiny including that the battles were near and vital to Australia, and the politicians were inexperienced and tended to panic. Yet the main reason for close attention, as it soon became obvious, was that the campaign had been shaped by inaccurate strategic assessments.<sup>10</sup>

The Australian General Thomas Blamey has been criticised for underestimating enemy capabilities, and failing to prepare Port Moresby for Japanese attacks. His miscalculations included deploying only two inexperienced and poorly trained militia brigades, as opposed to brigades from the combat experienced Australian Imperial Forces, to Port Moresby in May 1942, and making little attempt to cater for other than a seaborne attack.<sup>11</sup> MacArthur and Blamey assessed that there was no chance of an overland approach on Port Moresby due to terrain and potential communications challenges across the Owen Stanley Range, creating an alleged "Maginot Line" mentality in the minds of Australian and US commanders.

Australia's strategy was further complicated by MacArthur's presence far away to the south in

Australia, where he had become the principal military adviser to the Australian Prime Minister, John Curtin. Using current military terms, MacArthur was at the operational level of war from the US perspective, while from the Australian perspective he was at the strategic level. MacArthur was given operational control over all of the Australian armed forces within the South-West Pacific Area, including the entire Australian continent as well as the islands to the north of Australia.<sup>12</sup> Curtin's inexperience in military matters meant that he felt unable to challenge MacArthur even when Blamey, his senior Australian military adviser, offered a contrary view.<sup>13</sup> This would make Australia increasingly marginalised in decision making during the Papuan campaign, and particularly during the subsequent Allied operations in 1943-45.

### **The Operational Situation – the Impact of Geography**

The Papuan campaign was one of the few occasions where MacArthur took territory for the sake of taking territory. In Papua he had to drive the Japanese back away from Port Moresby, and decisively engage them at Buna. On the whole MacArthur's South-West Pacific Area (SWPA) campaign took place in a maritime environment where he moved through a large area, and where the actual seizing of decisive points was in some ways incidental to his overall aim.<sup>14</sup> He did not have a large Navy, and so he used the Air Force, his operational centre of gravity, as a striking force. He replaced the aircraft carriers he did not have with bases, which he seized to station his aircraft. In this way he was able to advance his bomber line north through the SWPA. MacArthur saw the Papuan campaign as a demonstration of the enormous flexibility of modern air power. He stated "the advance of bomber lines through the seizure of forward bases meant that a relatively small force of bombers operating at short and medium ranges could attack under cover of an equally limited fighter force. Each phase of advance had as its objective an airfield, which could serve as a stepping stone to the next advance".<sup>15</sup>

### The Operational Situation – Command and Control

MacArthur's SWPA was created in April 1942. Within this theatre MacArthur was both a joint commander and coalition commander. MacArthur had the advantage that the US Army Air Force (USAAF) was still nominally part of the US Army, and after sacking Lieutenant General Brett in July 1942 and replacing him with Major General Kenney, he began to reap the rewards of an effective air component that was definitely subordinate to MacArthur. The US Navy, in contrast, was initially unwilling to place forces under MacArthur as he was an Army commander. In time this final piece of joint integration occurred, but throughout the campaign MacArthur had few US Navy personnel on his headquarters.<sup>16</sup>

MacArthur exercised command of this theatre through an almost entirely American staffed General Headquarters (GHQ SWPA) which initially was located in Melbourne, and at the end of July 1942 moved to Brisbane. MacArthur had three principal subordinates. Vice-Admiral Herbert Leary, USN, (Vice Admiral A. Carpenter, USN, from September 1942), commanded Allied Naval Forces, which included Australian, New Zealand, Dutch, and US units. General Sir Thomas Blamey of the Australian Army became Commander Allied Land Forces with a Land Headquarters staff which was almost completely Australian, and he was also Commander-in-Chief of the Australian Military Force, Lieutenant General G. Brett of the USAAF was commander of the Allied Air Forces, which had the only truly combined and integrated coalition headquarters in the SWPA, and utilised Australian commanders in five area commands. Kenney changed this structure by creating the US Fifth Air Force which included a RAAF component, and was responsible for all operations against the Japanese in Papua and New Guinea, and he relegated the remainder of the RAAF to operations in and from Australia, except for operations from Townsville to New Guinea.<sup>17</sup>

MacArthur was dissatisfied with these command arrangements, in particular with the placement of US forces under an Australian

Army commander. This was despite the situation where the Australian Army had 13 divisions in Australia, several of which were veterans of the North Africa campaign, and the Americans had only two, neither of which was battle ready or tested.<sup>18</sup> To overcome this dilemma MacArthur persuaded the "meekly acquiescent" Prime Minister Curtin, to order Blamey to Papua to command the land forces during the campaign on September 23, 1942.<sup>19</sup> This effectively placed Blamey as a task force commander with influence, based on any optimistic assessment, at the lower end of the operational level of the campaign. In doing so, MacArthur effectively neutralised Blamey's influence on the overall operational direction of the subsequent campaign: New Guinea.

### The Operational Situation – The 1 October 1942 Campaign Plan

The Japanese withdrawal along the Kokoda Track in September 1942 allowed MacArthur's GHQ SWPA, for the first time, to develop and issue a comprehensive plan with its end state: the envelopment and destruction of the Japanese Army, the enemy's operational centre of gravity, at the Gona-Buna-Sanananda beachhead.<sup>20</sup> In what became known as Stage 1 of the 1 October Plan it was envisioned, after a preliminary assault on Goodenough Island to secure the coastal route from Milne Bay to the northern Papua coast, that a series of sweeps and envelopments along three axes of advance would position Allied forces for an attack on Buna in mid November. The 7th Australian Infantry Division would move in a frontal attack on the first axis, while the American 2d Battalion of the 126th Infantry would move in a wide flanking movement against the enemy lines of communication on the second. The end state for the troops advancing along the first and second axes, their completion of Stage 1, would be the establishment of a defensive line along the Kumusi River. On the third axis, the 18th Australian Infantry Brigade, fresh from victory at Milne Bay, would sweep up the north coast of Papua and meet the US 128th Infantry, airlifted from Port Moresby, at Wanigela. The two units would then stage at Embogo for the assault on enemy lines less than ten miles away.<sup>21</sup> After all objectives of Stage 1

were secured, Stage 2, the advance upon the Gona-Buna-Sanananda area, would be ordered with all three approaches converging on the bridgehead.<sup>22</sup>

By using stages in the operation, MacArthur was careful to link the 1 October Plan with the continuing operations in Guadalcanal. He emphasised that the Japanese controlled the sea lines of communications north of Papua, and that in the short term the Allies did not have “any reasonable expectation of being able to contest that control”.<sup>23</sup> He feared that a Japanese victory at Guadalcanal would enable them to concentrate their efforts in Papua, and so threaten Allied lines of communication. With seaborne resupply vulnerable, the Allies became heavily reliant on logistic support from air and native carriers. MacArthur stressed that after Stage 1 the Allies would be in a position to either: launch an assault or defend against possible Japanese counter-attacks. He therefore kept the Allied campaign balanced: not allowing the Allied forces to outrun lines of communication, whilst setting the conditions for the destruction of the Japanese in Papua. The 1 October Plan is a good example of MacArthur remaining cognisant of Clausewitz’s culminating point of victory – the risks of the advance would be counter-balanced by a secure line of retreat.<sup>24</sup>

### The Operational Situation – Coalition Operations

The last stage of the Papuan campaign, when the allies closed in on Gona, Buna, and Sanananda, was the first major occasion in which American Army land forces cooperated closely with Australians, or took part in the ground fighting. However, before the Americans even saw action, some bad feeling had been engendered by unfair criticism of the Australians by senior American officers in Brisbane during the fighting on the Kokoda Track in September 1942.<sup>25</sup> Statements such as “the Australian is not a bushman; he is not a field soldier. He is nothing but a city slum dweller”, and that the Australians “won’t fight”, caused anger amongst the Australians and led them to watch closely the performance of the Americans in their first campaign.<sup>26</sup>

It had been previously noted at GHQ SWPA that “it was afraid to turn the Americans loose and let them capture Buna because it would be a blow to the prestige of the Australians who had fought the long hard battle through the Owen Stanley Mountains (sic) and who therefore should be the ones to capture Buna”.<sup>27</sup> American confidence soon withered when their assault on Buna on 19 November 1942 was repulsed. MacArthur then bypassed the chain of command, and ordered US Major General Harding commanding the US 32d Division, a National Guard unit from Michigan and Wisconsin, to take Buna at all costs.<sup>28</sup>

The fighting broke down, and the Australians now began to complain that the Americans would not fight, with General Vasey of the Australian 7th Division stating that the Americans had “maintained a masterly inactivity”.<sup>29</sup> Lack of Australian confidence in Harding, especially by the Commander New Guinea Force, Lieutenant General E.F. Herring as well as Blamey, largely led to him being relieved by MacArthur and replaced by Lieutenant General R.L. Eichelberger in late November 1942. After waiting for Australian tanks and the build up of Allied air power Eichelberger attacked Buna, and with the assistance of the fresh and experienced Australian 18th Brigade captured the village on 18 December 1942.<sup>30</sup>

One lesson of the Buna experience appears to be that the influence of a junior partner in a coalition is related directly to the relative performances of the fighting troops; or more strictly, to perceptions of their relative performance.<sup>31</sup> This is especially poignant when it is considered that the Australians had similar bloody experiences in clearing the Japanese from the swamps of Gona and Sanananda, which did not fall until 9 December 1942 and 23 January 1943 respectively. Eichelberger who urged MacArthur not to let the Australian’s “talk down their noses to you” did not miss this point.<sup>32</sup> This caused friction in the Allied command when on 27 December MacArthur ordered the 163rd Regiment of the US 41st Division to be sent to Eichelberger’s command. Blamey, as Commander of the Allied Land Forces, was livid that MacArthur had again bypassed the chain of

command; partly because he had intended the regiment to be sent to Vasey's command in the Sanananda area, and partly because he felt this was a matter of principle on which he should make a stand.<sup>33</sup>

In a letter written by Blamey to MacArthur, he stated that unity of command was threatened by MacArthur's actions and that the alteration of the plan would profoundly disturb Herring's confidence and upset his operations. MacArthur disagreed that he was interfering at the tactical level, and stated that he was "merely strategically advising as to where I believe it would be best to exert the main effort of the ground forces."<sup>34</sup> The experience of the Papuan campaign had an important impact on MacArthur, for in early January 1943 he began gradually to remove American units from Australian command. It would be an exaggeration to claim that the problems of Allied cooperation in late 1942 contributed wholly to this action, but the events in Buna, and Blamey's humiliating taunts, convinced MacArthur that it was a path he should take.<sup>35</sup>

### The Operational Situation – Joint Operations

Amphibious landings along Papua's north coast, especially at Milne Bay, displayed the Allied ability to conduct joint operations from the sea. However, the Milne Bay operation was characterised by the innovative use of fishing boats, luggers, row boats, and even outrigger canoes,<sup>36</sup> rather than naval assets which were increasingly required for the Solomons and wider Pacific campaign. This also meant that naval gunfire support was almost non-existent, resulting in Allied units and resupply convoys being exposed to enemy air attack, and delayed ship-to-shore movement of troops and supplies.

In search of more reliable air and amphibious support, MacArthur organised a new unit for future campaigns: the engineer special brigade. These brigades were designed to carry troops and equipment ashore, organise beaches, and construct airfields.<sup>37</sup> However, despite the lack of naval assets, approximately half of the supplies for the Gona-Buna-Sanananda operation were seaborne.<sup>38</sup>

The problem for Allied movement from Milne Bay to Buna was Admiral Carpenter's

refusal to provide destroyers to escort seaborne moves along the Papuan coast, due to the treacherous reef filled waters off Buna and subsequent lack of "sea room" in which to manoeuvre.<sup>39</sup> Eventually Carpenter provided some shallow-draft anti-submarine vessels for escort duties, but no destroyers. This meant the Air Force, in addition to bearing close support and supply responsibilities, would have to carry almost the entire burden of protecting Allied supply movements northward of Milne Bay, and of beating back enemy attempts to reinforce the beachhead.

Kenney's Fifth Air Force, the Allied operational centre of gravity, whilst providing magnificent support to the Allies advancing from Port Moresby, faltered during the operations around Gona-Buna-Sanananda. Kenney's bold statement that "the artillery in this theater flies,"<sup>40</sup> erroneously led Allied planners to ignore the deployment of artillery and tanks to support Australian and US infantry attacks in late 1942. Once air support arrived it was at times inadequate, with only 121 sorties flown at Gona-Buna-Sanananda, with bad weather often leading pilots to miss targets, and with jungle conditions deceiving the Fifth Air Force to bomb US troops on several occasions outside Buna.<sup>41</sup> The critical vulnerabilities of the Fifth Air Force were that it had too few planes for its multitude of tasks; many of its pilots were inexperienced; the planes available for close air support were in general not suited to the role; and air-ground liaison was virtually non-existent. Communications were so bad that there was not a single instance during the Gona-Buna-Sanananda operation of a pilot having successful radio contact with the troops on the ground.<sup>42</sup> This led the ground forces to conclude that the Air Force, while excellent for area bombing, could not be relied on for pin-point bombing of enemy positions under attack by frontline troops.

These inadequacies were partially offset by the excellent troop, supply, and casualty movement performed by aircraft over the Owen Stanley Range, moving from Port Moresby to Buna in 35 minutes compared with 18 to 28 days by land, especially once the plans for the attack on Buna had been made. A total of 14,900 troops

were flown to the Buna area by C-47s during the Gona-Buna-Sanananda operation, and 6,000 sick or wounded were evacuated.<sup>43</sup>

### The Operational Situation - Enemy Forces

The centre of gravity in New Guinea, the *South Seas Detachment* under the command of Major General Horii, seized Lae and Salamaua on the north coast of New Guinea in March 1942. In consultation with General Hyakutake of the Japanese 17th Army, who took his orders directly from the Japanese Imperial General Headquarters, Horii planned to conduct a double thrust against Port Moresby and Milne Bay from 21 July.<sup>44</sup> This marked the start of the Papuan campaign and these two operations were part of Hyakutake's overall strategy, which aimed at the creation of an iron ring around north-east Australia through the capture of New Caledonia, Fiji, Samoa, and Port Moresby.<sup>45</sup>

Japanese critical vulnerabilities in the Papua campaign hinged on three aspects. First, they badly miscalculated the Allied strength at Milne Bay, which aborted their double drive on Port Moresby. Second, the Guadalcanal operation siphoned troops and resources away from the Kokoda Track operation thereby forcing the Japanese to withdraw to the Papuan north coast. Third, the Japanese logistic system was over-extended which, combined with Allied air-superiority that limited shipping movements, prevented them sustaining their troops in most parts of Papua.

The dire Japanese situation at the time of the Gona-Buna-Sanananda operation led, in part, to the creation of the 8th Area Army on 16 November 1942, commanded by Lieutenant General Imamura and headquartered in Rabaul. From this point the huge span of control previously held by Hyakutake's 17th Army, hitherto responsible for New Guinea, Papua, and the Solomons, ended allowing that Army to operate exclusively in the Solomons.<sup>46</sup> The 18th Army, to be commanded by Lieutenant General Adachi, was formed to operate in New Guinea with the initial task of retrieving the situation in Papua. This organisational restructuring failed to solve Japan's fundamental problem: strategic over-extension.

### Conclusion

This campaign analysis has examined Allied operations in Papua from the Japanese invasion of Buna 21-22 July 1942, until the fall of Sanananda to Allied forces 23 January 1943, with an emphasis on Australian operations within a broader strategic and operational framework largely shaped by the United States. This article has examined the events of the Papuan campaign, the strategic situation the Americans and Australians faced, the operational situation including geographic factors, command and control, campaign planning, coalition and joint operations, enemy forces, and applications the campaign had for subsequent strategic goals of the Allies.

The end of the Papuan campaign completed the first defeat of a Japanese land force during WWII. They employed about 20,000 men in the Kokoda, Milne Bay, and Gona-Buna-Sanananda operations, and it is estimated that 13,000 of those perished. Of the balance, only 2,000 were evacuated by sea, with 5,000 troops missing. The Australians lost 5,698 men, and the Americans suffered 2,931 battle casualties.<sup>47</sup>

The victory in Papua destroyed any Japanese chances of invading Australia, and provided MacArthur with a springboard to continue his inexorable drive to reclaim the Philippines. The price paid by Australian forces was the exhaustion of four of the six brigades of the 6th and 7th Divisions. In the absence of the Australian 9th Division, which was still returning from operations in the Middle East, the Allied offensive into New Guinea would be delayed until Australian forces were again able to spearhead the Allied thrust.<sup>48</sup>

For Australian-American relations the campaign had largely positive effects. MacArthur had dazzled Australian politicians, while clashing with Australian military commanders, especially Blamey. The Allies had held on against a determined foe, and turned near defeat into a gritty victory on the northern shores of Papua. Two key outcomes: the first battle-test of the US Army and its commanders under the conditions which were to attend much of the ground fighting in the Pacific, and the first land campaign defeat of the Japanese Army did much to strengthen the

coalition and friendship between Australia and the United States which has continued into the 21st century.

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# Capitalising on Military Revolution: Lessons from the *Grande Armée*'s Victory at Jena-Auerstädt

By Major Stuart McCarthy, RAE

*The French Army had grown up and adapted itself to its work by contact with the actual hard facts of war. The Prussian rulers were soldiers only and not statesmen, hence they failed to perceive how profoundly the whole nature of war had been influenced by the growth of the spirit of nationality which found its expression in the armies of the French Revolution.*

F.N. Maude *The Jena Campaign 1806*<sup>1</sup>

*Proponents of the contemporary revolution in military affairs (RMA) might have us believe that an RMA is a “new” phenomenon. On the contrary, the RMA with which we are presently confronted is only the most recent in a recurring historical theme. As we ponder the impact of the current RMA on future warfare, numerous lessons can be drawn from the manner in which military forces have capitalised on the RMAs of the past. Foremost of these lessons is that revolutionary military innovation has resulted not only from technological change, with which we tend to be most fascinated, but more importantly the associated sociological and political change. Despite the aspirations of military commanders through the centuries, successful military innovation is generally the result of such changes rather than the cause. Only through understanding change and innovation in historical context can we hope to emulate the successful endeavours of our predecessors.*

This article describes the impact of the RMA that occurred in the French Army at the end of the 18th century. Much of the military history of the Napoleonic era focuses on Napoleon's tactical and strategic genius. However his true genius lay in building upon the technical, tactical and organisational foundations laid by his predecessors of the late 18th century, in addition to realising the profound socio-political transformation resulting from the French Revolution. This is best illustrated in the 1806 Prussian campaign, specifically at the battle of Jena-Auerstädt, where the key to the *Grande Armée*'s victory over the Prussians was its superiority in both technology and ideas.

## Military Revolutions and Revolutions in Military Affairs

Williamson Murray and MacGregor Knox are two of a mere handful of academics who have considered the RMA concept within its historical context. In their authoritative work *The Dynamics of Military Revolution, 1300-2050*,<sup>2</sup> they describe

two parallel phenomena – *military revolutions* and *RMAs*. Both of these are crucial to understanding periods of radical military innovation.

Military revolutions, Murray and Knox argue, are changes in the nature and purpose of war itself. The defining feature of military revolution is that it “changes the framework of war”.<sup>3</sup> Military revolutions “have brought systemic changes in politics and society”, “recast society and the state as well as military organisations”, and “alter the capacity of states to create and project military power.” Most importantly from a military perspective, and distinguishing them from RMAs, military revolutions have been “uncontrollable, unpredictable and unforeseeable.” They are a socio-political phenomenon to which military institutions must be attuned in order to respond effectively to the revolutionary changes thrust upon them. Murray and Knox further point out that the effects of military revolution are “additive”, in that states

that have not undergone the socio-political changes of preceding revolutions cannot easily “leapfrog” to the present by adopting the paraphernalia of their more advanced adversaries.<sup>4</sup>

RMA's on the other hand, are initiated by military organisations by developing new ways of defeating their opponents. In order to do this “they must come to grips with fundamental changes in the social, political, and military landscapes; in some cases they must anticipate those changes”. RMA's require “the assembly of a complex mix of tactical, organisational, doctrinal, and technological innovations in order to implement a new conceptual approach to warfare”. They can occur relatively quickly during war but may take decades in peacetime, leading some to question the term “revolutionary”. The significance of those RMA's embarked upon in peacetime is rarely appreciated until the advent of war, where “battlefield outcomes usually make pitilessly clear which military organisation has innovated most effectively”. Most importantly, RMA's are *rarely driven by technology, and require a culture permissive of innovation and debate*.<sup>5</sup>

In summary, military revolutions bring changes to the *nature* and *purposes* of war, resulting from socio-political change, whereas RMA's bring changes to the *methods* and *means* of war in response to the changes occurring to the society within which military organisations exist, including the technology at their disposal. All of these changes were evident in France during the late 18th and early 19th centuries.

### Before the Revolution(s) - Dynastic Warfare

Warfare through the Middle Ages and the early 18th century was the domain of the European nobility and aristocracy, hence it is often referred to as *dynastic* warfare. Armies of this era were comprised of mercenaries and the servants of feudal lords or monarchs, often of a variety of nationalities, usually assembled immediately before the onset of war. Standing armies became the norm as finances improved among the royalty, but were still multi-national in composition. Class rather than merit determined military status; officers were from the nobility and upper classes, whereas enlisted soldiers were

serfs, peasants, unemployed or vagabonds, either legitimately recruited or pressed into service. Enforcing discipline and preventing desertion were the two greatest challenges for every leader.

Technology and ideas also imposed limitations on the methods and means of war. Campaigns were severely limited in range by an inability to transport large quantities of equipment and supplies. Even after the appearance of gunpowder, weaponry remained cumbersome and warfare remained relatively static in nature. Battles were characterised by rigid, linear tactics, with opponents exchanging volleys of musket fire at close range until one side broke. Both sides would endure horrendous losses, usually preventing the “victorious” army from pursuing its defeated foe. The nature of dynastic warfare often forced commanders to avoid decisive engagement with the enemy, making battles often inconclusive and strategically indecisive.

Despite such limitations, the Prussian Army of Frederick the Great was a master of dynastic warfare. At Rossbach on 5 November 1757 Frederick's 22,000 strong army defeated an allied army of more than 40,000 French and German troops. The Allies' commander Soubize, hoping to outflank the Prussians, had advanced on their encampment in column of march. Responding quickly to the threat however, the main Prussian force deployed to meet the Allies on the battlefield while their cavalry swept over a ridge to catch the Allies still in column of march. The Allies' advance guard was scattered, then the Prussian infantry wheeled into the path of the Allied army and reduced the French and German infantry to disarray in less than 15 minutes. The Allies were swept from the battlefield, sustaining 5,000 casualties and a further 5,000 were captured, whereas the Prussians suffered little more than 500 casualties.<sup>6</sup> This was a resounding victory, exemplifying Prussian mastery of the 18th century style of dynastic warfare. However a dramatic change in the nature of warfare was to occur during the second half of that century, brought about by the onset of rapid population growth, the modernisation process which later culminated in the industrial revolution, the



French and American Revolutions, and innumerable other socio-political factors.<sup>7</sup>

### The French Revolution(s) and the *Grande Armée*

The revolutionary patterns described by Murray and Knox are reflected in both the military innovations of the Royal French Army during the second half of the 18th century and its adaptation to the socio-political upheaval of the French Revolution. Responding to their dramatic defeat at Rossbach, the Royal Army embarked upon a series of technical, tactical and organisational reforms which, over a period of several decades, changed both the methods and means of war and culminated in what is now classified as an RMA.

There were three major developments in means and methods made by the Royal Army during the first phase of the RMA. The first of these was a series of improvements in artillery undertaken by General Jean de Gribeauval, Inspector General of the French Artillery before the Revolution. Before the mid 18th century, metal manufacturing technology imposed severe limitations on the production of artillery pieces. The large, heavy cast-iron cannons of this era, though adequate for relatively static siege warfare or use on naval vessels, were too cumbersome to be effectively employed on the open battlefield. The perfection of Jean Maritz's cannon-boring machinery during the 1750s however, enabled the development and introduction of a new family of lightweight artillery pieces. These could be quickly manoeuvred around the battlefield and brought into action, where a well-trained crew could bring high rates of accurate fire to bear on the enemy.<sup>8</sup> Gribeauval proposed a series of reforms that sought to fully exploit this new technology, which were approved by Louis XVI in 1774. Technical reforms included the standardisation of field artillery types (into twelve-, eight- and four-pounder categories), lightening of barrels and carriages (the new eight-pounder was half the weight of its predecessor), the introduction of inclination markers and gunnery tables, and the production of pre-packaged ammunition. Corresponding organisational improvements included formation of the standard eight-gun battery, and attachment

of these batteries to infantry units.<sup>9</sup> Thus the artillery was integrated into the combined arms team alongside the cavalry and infantry, contributing mobile, accurate firepower and shock action to the French arsenal.

The second major series of developments were organisational. As the sizes of armies increased and campaign distances lengthened, commanders struggled to overcome the challenges of command and control, logistics, tactics and personnel administration.<sup>10</sup> Accurate mapping, the use of concise written orders, and the consequent raising of a specialist corps of staff officers, sought to meet the foremost of these challenges. De Segur, the French Minister of War, formed a *Corps d'Etat Major* in the Royal Army in 1783.<sup>11</sup> However the most significant development was the inception of the *division*. Prior to this innovation, armies were comprised of a collection of individual regiments; formations above regimental level were temporary, without permanent commanders, headquarters or staffs. The establishment of self-contained divisions, with a balanced composition of infantry, cavalry and artillery, saw unprecedented improvements in command and control, tactics and logistics.<sup>12</sup> Although Marshal de Broglie had experimented with divisions during the Seven Years War, they were not really practical until the network of European highways was extended before 1789. These macadamised roads were the first modern all-weather highways, and stood up to the heavy traffic of large army formations.<sup>13</sup> The divisional organisation became standard in 1796.<sup>14</sup>

The third major development was in infantry tactics, including the introduction of Comte de Guibert's *column of divisions*. In this formation the companies of an infantry battalion were drawn up one behind the other with short intervals, or "divisions", between them. These were able to move rapidly towards the enemy behind a screen of skirmishers, then either close with the bayonet while remaining in column, or deploy quickly into a firing line by having the first company stand fast and the others quickly form on its flanks. The close column was easier to handle than a long, perfectly dressed line, and the French infantry's speed and flexibility was

dramatically enhanced.<sup>15</sup> Numerous variations of the *column of divisions* were employed and a lively debate ensued for many years,<sup>16</sup> but the French tactics were eventually duplicated in nearly all European armies except the British.

Unfortunately much of the work of the French military leadership during the period was thwarted due to resistance from Louis XV and Louis XVI, and the intervening Revolution. As John Elting observes however, “In the long run their work would not be wasted; Napoleon, his marshals and the *Grande Armée* would profit richly from it.”<sup>17</sup> The developments of the Royal Army in the years preceding the French Revolution established the foundation for Napoleon’s successes early in the 19th century.

This process of deliberate reform was interrupted by the upheaval of the French Revolution which, in altering the nature and purposes of war in such radical fashion, is the clearest example of military revolution in modern history. The national revolt in 1789 resulted in the transfer of many royal powers to an elected National Assembly, the abolition of last vestiges of feudality, and the formation of a citizen soldier militia called the *National Guard*. After Louis XVI attempted to leave France unsuccessfully in 1791, the National Assembly required a new oath of allegiance to the French nation from every military officer. In January 1793 the National Convention, which had replaced the National Assembly, sent Louis XVI to the guillotine, inflaming much of royal Europe against the forces of the Revolution. The First Coalition, formed by Spain, Holland, Austria, Prussia, England and Sardinia in Spring that year, sent 400,000 troops into the field against France, triggering a series of armed conflicts across Europe not to be concluded until almost a quarter of a century later. The National Convention proclaimed the *levee en masse* in August, making all able-bodied Frenchmen of military age liable for conscription and placing all of the economic resources of France, including civilian labour, at the disposal of the Government for waging war. By December 1794 over one million Frenchmen were under arms and Paris had become the largest arms-producing centre in the world.<sup>18</sup>

Changes in the nature and purpose of war brought about by the French Revolution establish it as one of Murray and Knox’s *military revolutions*, marking the historical transition from *dynastic* to *national* warfare. During the decades that followed, the nature of warfare was transformed from conflicts between the subjects of monarchs to conflicts between the citizens of nations. The era of national warfare continued until its zenith during the Second World War, in which the unlimited aims, scale and means of war led to the term “total war”. In the meantime, France, as the first European republic, waged a series of wars against the surrounding monarchies. The French Army epitomised what David Gibson calls the “revolutionary spirit of the citizen army”,<sup>19</sup> in itself exerting a dramatic impact on the conduct of war, and compounding the effects of the ongoing RMA.

Egalitarianism was the key theme in the subsequent reforms of the French military. Merit rather than status became the basis for appointments and promotions. The hallmark of the French soldier was his *élan* – his morale and initiative distinguishing him from his browbeaten enemies. John Elting argues that the French soldiers “were of a higher average intelligence than the enemy’s ‘walking muskets’, and the French Government’s system of indoctrination convinced many of them that they fought for liberty, equality and fraternity against the miserable slaves of foreign despots”.<sup>20</sup> Napoleon himself said of his troops’ *élan*:

*A good general, good cadres, good organisation, good instruction, and good discipline can produce good troops, regardless of the cause they fight for. It is true, however, that fanaticism, love of country, and national glory can better inspire young soldiers.*<sup>21</sup>

The moral element of war, epitomised by French *élan* and initiative, had a tremendous influence on strategy and tactics. Commanders at every level were encouraged to use their initiative in adhering to their commanders’ intent, instead of slavishly following prescriptive orders. The conventional 70 paces per minute laid down in the drill manual was abandoned in favour of an unprecedented 120 paces per minute, allowing a

French column to routinely march 30 kilometres per day.<sup>22</sup> Napoleon's Maxim 9 exemplifies the significance of the forced march within his operational art:

*The strength of an army, like power in mechanics, is reckoned by multiplying the mass by the rapidity. A rapid march increases the morale of an army, and increases its means of victory. Press on!*<sup>23</sup>

The employment of skirmishers ahead of each column of divisions "gave scope for natural individualism, *élan* and intelligence of the Frenchman."<sup>24</sup> This professionalism and fighting spirit underpinned even further enhancements to organisations and tactics.

After the Revolution, the RMA itself continued in earnest, with a renewed focus on preparing for war against the aristocratic powers that surrounded France. On rising to power in 1799, Napoleon "received his army ready fashioned and tempered for war from his predecessors of the late *Ancien Régime* and the early Revolution",<sup>25</sup> however he took no hesitation in further refining the innovations of Gribeauval, Guibert, the Duc de Broglie and other military intellectuals. Numerous evolutionary improvements and adaptations were made, once again leading to the development of new techniques in the art of war.

The rationale for the divisional structure inherited by Napoleon was applied to establish balanced, independent formations at both higher and lower levels. At the lower level, compact formations known as *demi-brigades*, comprised of several regiments or battalions, were often task-organised for specific operations, in much the same way that we constitute battlegroups today. At the higher level, *corps d'armée* were established to form the building blocks of the *Grande Armée*, each commanded by one of Napoleon's marshals. Typical of these was Davout's III Corps at Auerstädt, consisting of three infantry divisions (including 12 line and one light infantry regiments), a cavalry brigade (of three *chasseurs à cheval* regiments), and 46 guns (29 in the infantry divisions and 17 in the corps artillery). Its total strength was 28,874 infantry, 1,426 cavalry, plus artillerymen and auxiliary troops. This organisation was capable of moving

along several routes simultaneously, operating independently, and holding its own while under attack by superior forces until the arrival of other corps to support it.<sup>26</sup>

New campaigning methods were developed by Napoleon to fully exploit the inherent strengths of his *corps d'armée*. These revolved around the dual axioms of *assembly* and *concentration*, emphasising both the self-sufficiency of each formation and mutual support that could be achieved by deploying them within one day's march of each other. Napoleon favoured three broad types of strategic (read "operational") manoeuvre: *la manoeuvre sur les derrières* (envelopment manoeuvre); the strategy of "central position"; and the "strategic penetration".<sup>27</sup> The first of these was his most successful, and was used in his advance into Prussia in 1806. Such operational concepts were the forerunner to the modern understanding of "manoeuvre warfare".

Although Napoleon seldom intervened in tactics after taking command of the *Grande Armée*, he did contribute to the evolution of combined arms tactics. A typical Napoleonic battle would commence with a heavy artillery bombardment, under which light infantry would advance to add musketry fire to the engagement. A series of coordinated heavy cavalry and infantry attacks would invariably follow; the cavalry attacks compelling the enemy infantry to form squares, whilst the French infantry and artillery would force their way through the resulting gaps. The artillery would then engage the enemy from the flanks and rear, and the cavalry would sweep forward to exploit the breakthrough. Such close cooperation between the combat arms was extremely effective, dominating the battlefields of Europe until successful countermeasures were developed later by Wellington.<sup>28</sup> The enhanced firepower, speed and flexibility resulting from these ideas became the hallmarks of Napoleonic warfare.

Changes in the nature and purposes of war, as well as the methods and means with which it was pursued, were well and truly revolutionary. In Elting's words, "The French Revolution had done more than take a King's head and spill noble blood; there was an overflow of new *ideas*

as well as violence.<sup>29</sup> In the years following the French Revolution Napoleon's *Grande Armée* capitalised not only on the RMA, but also the socio-political developments of the Revolution. This lay in stark contrast to their opponents.

### The Prussian Army

The Prussian Army of 1806 and its leadership were the antithesis of the *Grande Armée*. Buoyed by their historical success, they were reliant upon outdated ideas, organisations and technology. Concepts and doctrine remained unchanged from the days of Frederick the Great. The tradition of harsh discipline produced "an army of automatons"<sup>30</sup> who adhered to a rigid system of shoulder-to-shoulder drill, in which precision was more desirable than speed or flexibility. While the infantry were well disciplined, over-regimentation led to formalised tactics that discouraged initiative, and most were issued with 50-year-old pattern muskets. The cavalry were bold but intensely conservative in organisation and role. The artillery arm was large in size but badly handled and often misemployed.<sup>31</sup>

Although they were numerically superior to the French, the Prussians could field only 171,000 troops out of a total strength of 254,000 due to flawed administration. Strategic mobility was reduced to a minimum through reliance on enormous supply trains and fixed magazines and supply depots. There was no proper staff corps and no corps HQs, and divisional staffs were poorly organised. As a result, orders from general HQ had to be incredibly detailed and often contradicted the actual situation on the ground. The chain of command and decision-making processes used in 1806 were so convoluted that David Chandler referred to the Prussian hierarchy as a "many-headed hydra".<sup>32</sup>

An interesting comparison between the Prussian and French Armies is the relative age of their commanders. At Jena-Auerstädt Napoleon and his marshals were aged in their late thirties to early forties. The Prussian commanders, however, were positively elderly. The commander, Charles William Ferdinand (the Duke of Brunswick) was 71; his rival Friedrich Ludwig (Prince of Hohenlohe) was 61; cavalry General von Blücher was 64; and von Mollendorf – the senior royal adviser who still fancied

himself as a field commander – the grand old age of 81.<sup>33</sup> Striking a balance between youth and experience, able to withstand the physical and mental rigors of modern warfare, and fully accustomed to the new way of warfare, the French commanders would simply run rings around their Prussian counterparts.

Despite these shortcomings morale was high and an air of "effortless superiority" pervaded all ranks.<sup>34</sup> Amid this environment the Prussians did not envisage the disaster that was about to occur at the hands of Napoleon. In Chandler's words, "the warriors of Prussia had to be taught the hard way that the realities of warfare had changed beyond all recognition in the 50 years since Rossbach and Leuthen."<sup>35</sup>

### The Prussian Campaign

After the destruction of the Third Coalition at Austerlitz in December 1805, Napoleon turned his attention to Prussia. Under Frederick William III Prussia had avoided participation in earlier hostilities alongside Russia and Austria under thinly disguised neutrality, but had planned to "share in the liquidation of the French Empire" in the event of Napoleon's anticipated collapse.<sup>36</sup> The Prussian Government was Napoleon's first target in a number of political dealings aimed to consolidate French domination over Europe. Due to the disposition of the *Grande Armée* on its southern frontier Prussia seemingly had little option but to capitulate, however in August 1806 Frederick William decided to go to war against France. Once again, as F.N. Maude highlights, the scene was set for an epic struggle between the French *republic* and one of its aristocratic opponents:

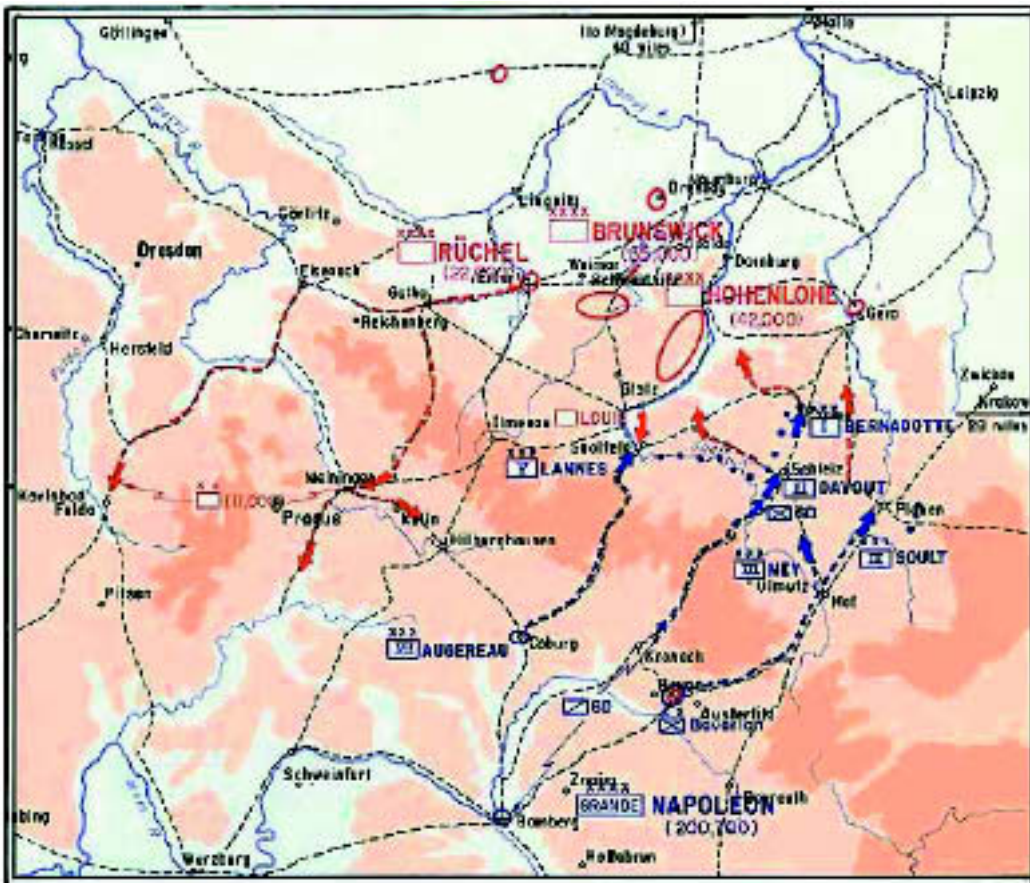
*Here the old and the new school, absolute Monarchy and Democracy, both in their highest form of embodiment, met one another under fairly equal conditions, ...*<sup>37</sup>

True to form, but contrary to the response initially anticipated by the Prussian military leadership, Napoleon took the offensive. However, unlike the prelude to his victory over the Third Coalition the year before, the political situation leading up to the invasion of Prussia in 1806 resulted in a high degree of uncertainty. His campaign plan was to advance through Saxony to Leipzig, in order to threaten Berlin, whilst

avoiding the Russian Army which had reeled back into Poland after Austerlitz. In opening his offensive he faced two challenges. First, the difficult passage of the Franconian Forest; and second, uncertainty as to the exact whereabouts and intentions of the enemy. These were overcome by forming his corps into the celebrated *bataillon carre*, in the Bamberg-Bayreuth area along the River Main. The *Grande Armée* was thus deployed in three columns: the corps of Soult and Ney on the right; Bernadotte and Davout in the centre; and Lannes and Augereau on the left. The advantages of this formation were numerous. The components of each column were able to provide mutual support during the crossing, and in the event that the Prussians opposed the head of one column as it emerged from the forest, the remaining columns

could be manoeuvred to engage the enemy detachment from the rear.<sup>38</sup>

The columns of the *Grande Armée* commenced their advance on 8 October while Murat's light cavalry squadrons rode ahead to conduct route reconnaissance tasks and endeavoured to locate the Prussian positions. The crossing of the Franconian Forest was completed without opposition, with each of the French columns covering approximately 50km in a day and a half. The first significant engagement occurred the following day at Schleiz, where Bernadotte and Murat quickly cleared an advance Prussian detachment. At this stage Napoleon anticipated that Lannes, leading his left column, would encounter a strong enemy force at Saalfeld the next day. Confusion reigned in the Prussian camp, and on 10 October what was initially planned as a general advance over the River



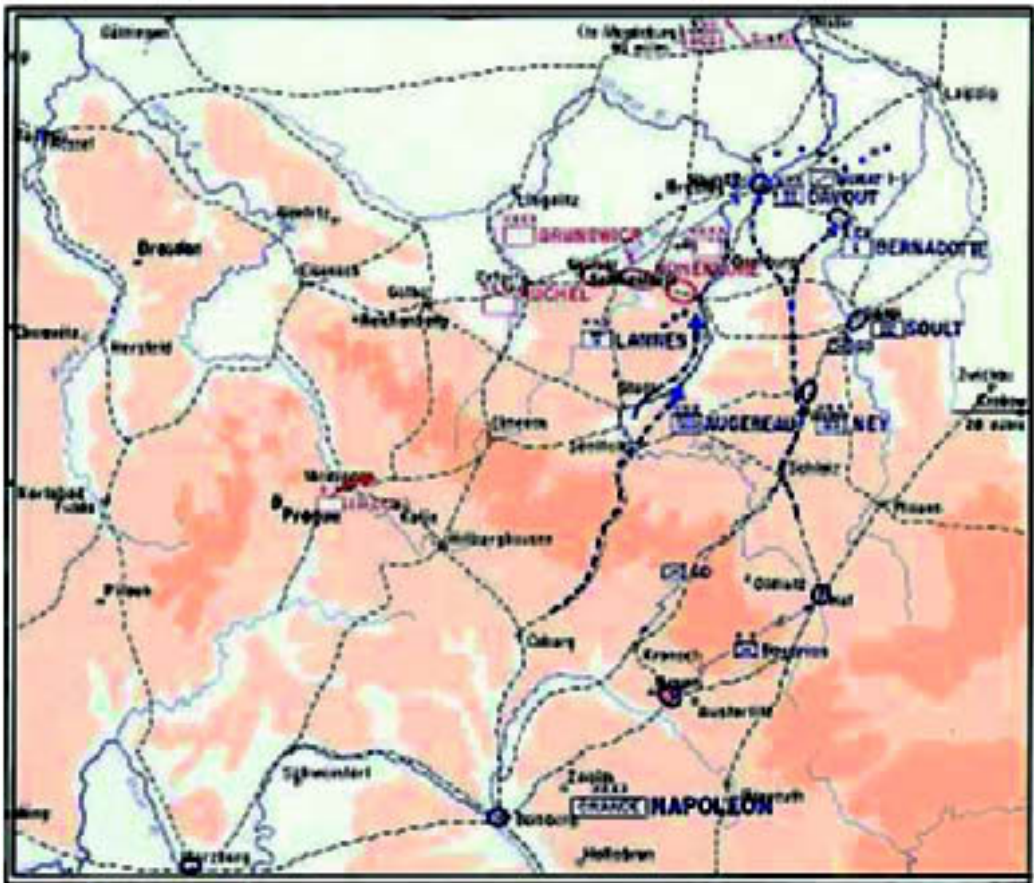
*The Prussian Campaign, 8-10 October*

Map courtesy of US Military Academy

Saale to support the withdrawal from Schleiz, became the ill-fated deployment of a mere division, approximately 8,000 men under Prince Louis against Lannes' corps at Saalfeld. The inevitable defeat convinced the Prussian commanders to order a general northward withdrawal towards the Elbe River, initially through Jena and Auerstädt.

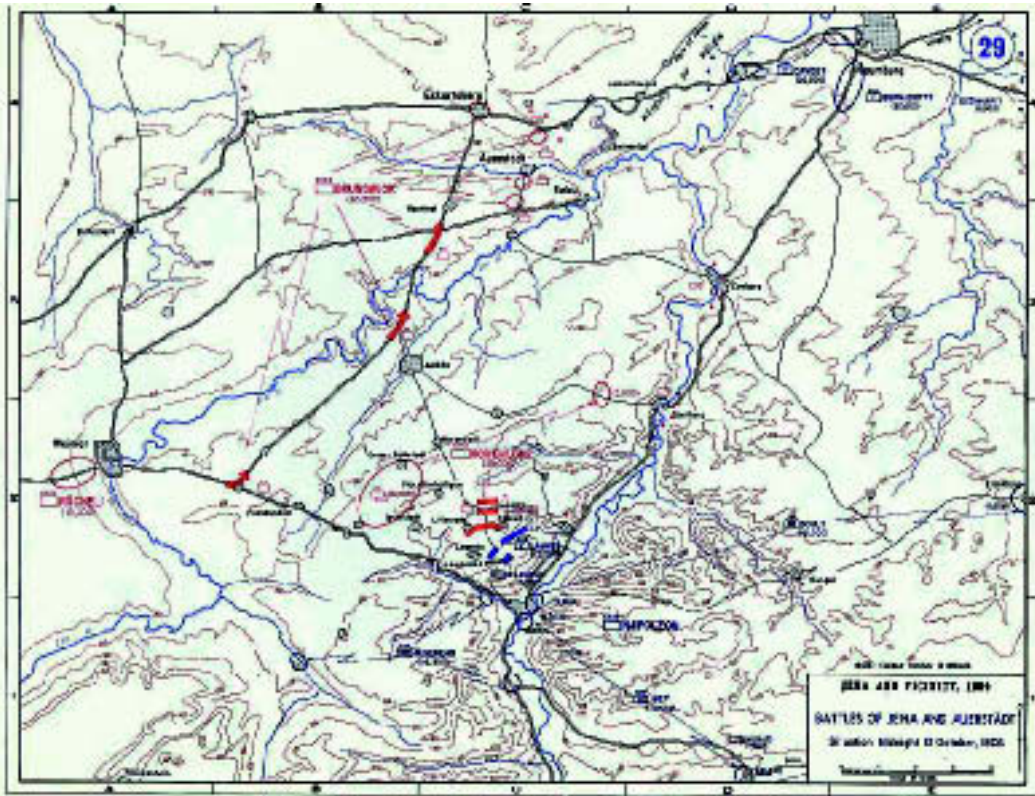
Still uncertain of the main Prussian locations, the *Grande Armée* continued directly north towards Gera on the 11th. On the same day it became clear to Napoleon that the Prussian Army lay to the west of the Saale, rather than the east, and he ordered a dramatic change in the line of march for the 12th and 13th. In what is best described as a huge left wheel, Lannes and Augereau (as the new advance guard) made for the Saale crossing points in the vicinity of Jena,

Devout moved on Naumberg to support them, and Bernadotte advanced towards Kosen via Zeitz, also in a supporting role. Soult remained in the vicinity of Gera to protect against any enemy activity to the north or east. On the morning of the 13th, Lannes occupied Jena and dispatched his lead division across the Saale, quickly driving back the Prussian advance elements and establishing a foothold on the Landgrafenberg plateau. Convinced that the main Prussian force was positioned to fight on the Landgrafenberg to the west, Napoleon joined Lannes at his advance headquarters on the afternoon of the 13th and ordered all of his marshals, except Davout and Bernadotte, to converge upon Jena. Within the next 24 hours, Lannes' V Corps, Augereau's VII Corps, Soult's IV Corps, Ney's VI Corps, and supporting formations, totalling well over



*The Prussian Campaign, 10-12 October  
Illustrating the bataillon carre*

Map courtesy of US Military Academy



*The Battle of Jena-Auerstadt, midnight 13 October 1806*

Map courtesy of US Military Academy

100,000 troops, assembled at the decisive point of the battlefield.<sup>39</sup>

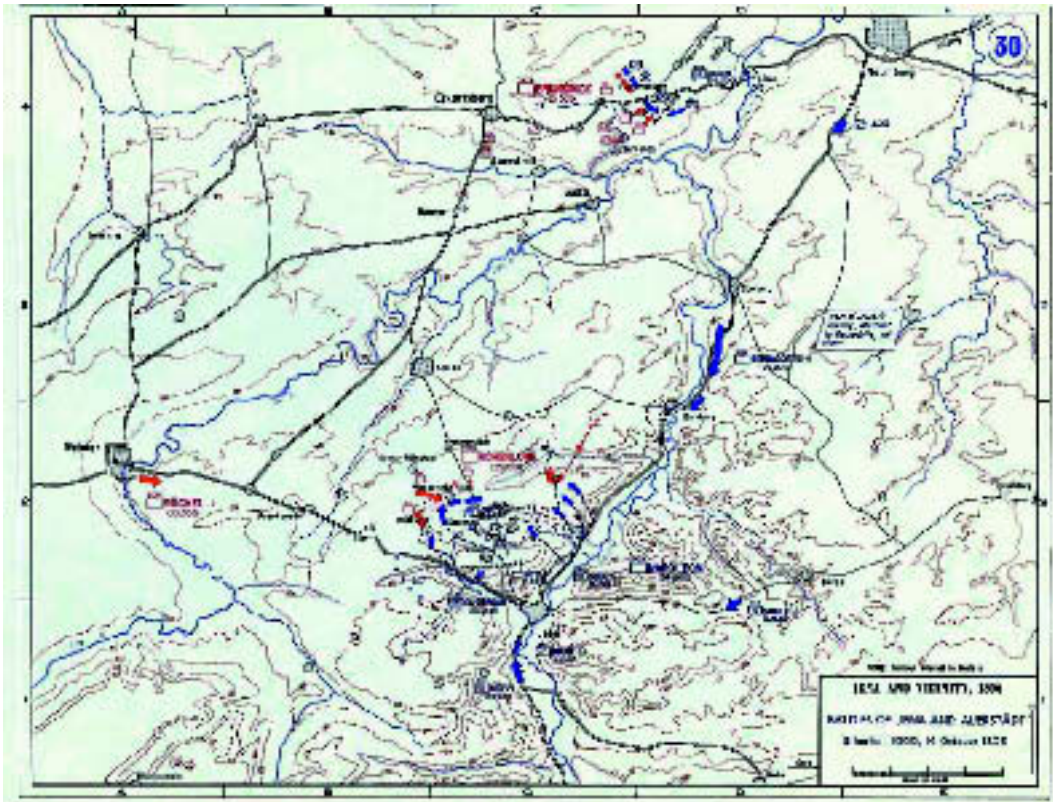
The progress of the campaign to this point highlights the advantages gained by the organisational improvements undergone by the French Army during the preceding 30 years. Napoleon's use of the *bataillon carré* during the advance into Saxony, his redeployment of the *Grande Armée* on a new line of march after discovering the location of the enemy, and the concentration of the main body of his forces at Jena, provide excellent examples of speed, concentration of force and flexibility at the operational level. None of this would have been possible without the formation of *corps d'armée*, with their inherently flexible command and control arrangements, or most importantly the *élan* of the French rank and file.

### **Jena**

Having massed the *Grande Armée* at Jena, Napoleon now had to deliver the decisive blow

against what he believed was the main body of the Prussian Army, west of the Saale. Although a suitable bridgehead had been secured at Jena, the Prussians' disposition on the Landgrafenberg, ground favourable for the defence, made the assembly of sufficient troops to deliver such a blow exceedingly difficult. This difficulty was overcome primarily by the successful employment of artillery.

Whilst the remaining *corps d'armée* closed on Jena, as described above, Napoleon made the calculated risk of retaining the Landgrafenberg foothold with only Lannes' V Corps at his disposal and the Saale at his back. In order to prevent a successful Prussian counterattack, it became essential for the French to secure the Windknollen, the highest peak of the Landgrafenberg. Between dusk on the 13th and the following dawn, 42 artillery pieces were manoeuvred up the steep, narrow track to the dominating Windknollen summit, along with



*The Battle of Jena-Auerstadt, 1000 hours, 14 October 1806*

Map courtesy of US Military Academy

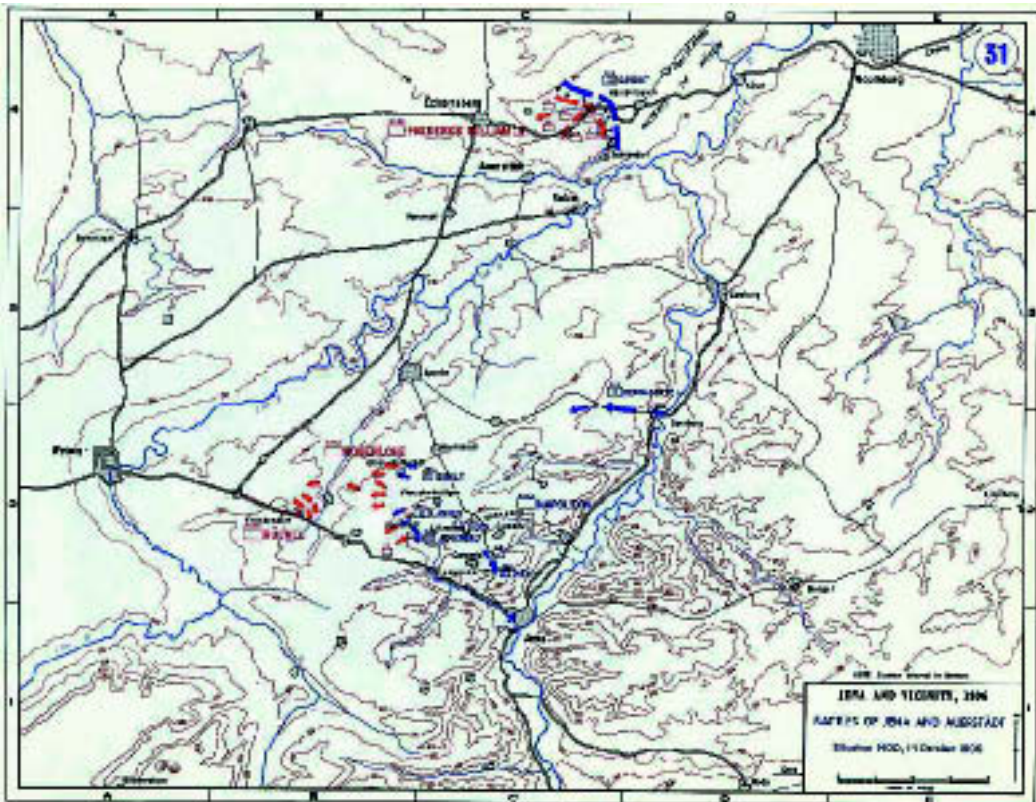
25,000 men.<sup>40</sup> This not only provided security against a Prussian overnight attack, but established an excellent firm base for the general attack planned for the 14th.

A full account of the battle of Jena cannot be reproduced here, however there are several notable examples of the employment of artillery. During the first phase of the attack in the early morning, Lannes' divisions were supported by 28 cannons, which supported the advancing infantry by engaging the enemy at extremely close range, and repulsed early Prussian counterattacks with heavy, accurate fire. After engagements on the flanks by Augereau and Ney later in the morning, and once Murat's cavalry arrived in the early afternoon, Napoleon ordered the advance by the centre. As the pressure of Lannes' attacking infantry broke the Prussian line, he "brought up his artillery at the gallop and opened a heavy harassing fire on the retiring columns",<sup>41</sup>

relentlessly pursuing the Prussians in their ensuing westward retreat. The pursuit was briefly halted just short of the Sulbach River, by a covering force established by a newly arrived Prussian column, however a small number of French guns were rushed up on order and assisted their infantry comrades in breaking the cohesion of this force.<sup>42</sup> The subsequent pursuit across the Sulbach marked the conclusion of the battle of Jena, during which Napoleon was convinced that the main body of the Prussian Army had been defeated.

Earlier advances in artillery design and organisation clearly proved advantageous to the French at Jena. Napoleon was able to exploit the mobility, accuracy and weight of fire of his artillery to overcome the strength of the enemy position west of the Saale, and in combination with the other arms to break the Prussian rank and file and hasten their flight from the





*The Battle of Jena-Auerstadt, 1400 hours, 14 October 1806*

Map courtesy of US Military Academy

battlefield. Importantly, it was the dramatically improved mobility and tactics of the French artillery, rather than the design of the actual artillery tubes, that enabled it to be so effectively integrated into the combined arms team.

### **Auerstädt**

On the evening of the 14th Napoleon received a dispatch from Davout that indicated his assessment of the battle at Jena was erroneous.<sup>43</sup> Rather than forming the main body of the Prussian Army, the force that had opposed Napoleon at Jena was merely the flank guard for the general Prussian withdrawal ordered on the 11th. Contrary to Napoleon's earlier orders, Davout's III Corps had opposed Brunswick's army of 60,000 at Auerstädt without support from Bernadotte. This hard-fought and costly engagement, occurring on the same day as the battle of Jena, provided the ultimate test for

French organisations and tactics at corps and divisional level.

Davout commenced his westward advance from Naumberg to Apolda during the pre-dawn hours of the 14th. Brunswick's troops, including 16 batteries totaling 230 guns, had camped overnight at Auerstädt. Elements of Davout's forward division, commanded by Gudin, contacted the leading Prussian troops at the village of Hassenhausen at 7.00am. Gudin formed his infantry into squares and fired on the Prussians at 1,000 yards, neutralising both guns and cavalry, then pressed forward until halted by Prussian numerical superiority. At this point he faced a total of nine battalions, 24 guns and 16 cavalry squadrons (12 of which threatened his right flank) however the French infantry squares easily repulsed the ensuing Prussian cavalry attacks.

A general Prussian attack was delayed until 9.45am to allow a greater build-up of forces.

Davout anticipated this would be directed towards his right flank, to open the intended Prussian withdrawal route. Gudin was re-deployed to the north of Hassenhausen with only a single regiment to the south, Friant's division reinforced him on the right flank, and the corps artillery was massed in a single battery, also to the north of Hassenhausen. The Prussian attack was held at bay along the entire front, with the exception of Gudin's left flank regiment which was briefly routed, but the arrival of Morand's division at 11.00am prevented a defeat on this flank.<sup>44</sup>

The culminating point of the battle was Morand's defence of the left flank and subsequent advance through the Prussians' right, epitomising the operational flexibility of the French division. On arrival in column, covered by a cavalry and light infantry screen, Morand deployed his division into line of battalion columns, with his guns and light infantry to the flanks, and drove off successive Prussian infantry attacks. The division then deployed into line for volley fire, engaging the Prussians on the Hill of Hassenhausen. Having advanced as far as Hassenhausen under heavy fire, seven of Morand's battalions on his left flank formed squares, whilst the remaining battalions on his right used the cover of walls and hedges, defeating a massed attack by 15,000 Prussian cavalry. Finally, the division re-formed into line of battalion columns, resumed the advance, drove the Prussian infantry over the River Lissbach and set about pursuing the broken enemy formations.<sup>45</sup>

Whereas Napoleon's manoeuvre early in the campaign illustrated the advantages of mutual support, concentration of force and flexibility offered by the *corps d'armée* system, the battle of Auerstädt exemplified the *corps d'armée's* ability to operate independently, relying upon its own organic assets to overcome an enemy's numerical superiority. Although severely outnumbered, III Corps' organisation and tactics proved markedly superior to those of the Prussians. The inherent strengths of the *corps d'armée* enabled Davout to turn potential disaster into an opportunity to seize the initiative and undertake successful offensive action.

### Analysing the *Grande Armée's* Success

Much of Napoleon's success throughout his career has been attributed to his tactical genius and remarkable foresight. A general feature throughout most of his campaigns and battles was the conformity of the outcome to his pre-ordained concept of manoeuvre. At Austerlitz the year before, his operational concept proceeded almost like clockwork, culminating in the celebrated envelopment of the Allies' left flank. However Jena-Auerstädt stands in stark contrast to this pattern. The uncertainty that plagued Napoleon right up until hearing of Davout's culminating attack at Auerstädt gave the decisive phase of the Prussian campaign a relatively haphazard character. The victory of the *Grande Armée* cannot therefore be attributed primarily to the genius of its commander, but rather his exploitation of the RMA and military revolution.

In assessing the outcomes of any battle, however, the question is often asked whether one side "won" or the other "lost". To this end Chandler is scathing in his criticism of the Prussians:

*Seldom in history has an army been reduced to impotence more swiftly or decisively. The great traditions of Frederick the Great and his justly famed techniques proved fatal to his successors. Complacency led to the rejection of all schemes of modernisation, and overconfidence resulted in a complete misappreciation of what was needed to face Napoleon.*<sup>46</sup>

The impetus for revolutionary changes in warfare during the 18th century was often provided by an unexpected failure on the part of one of the great powers.<sup>47</sup> Ironically, the event most prominent in triggering the dramatic reforms of the French military discussed earlier in this article was their defeat in 1757 at Rossbach, by the Prussian Army under Frederick the Great.<sup>48</sup> At Jena-Auerstädt the Prussians paid a high price for decades of complacency which followed Rossbach, whereas Napoleon's *Grande Armée* capitalised on the reforms of the ensuing RMA.

Similarly, the French had readily adapted to the new realities of the post-Revolution *socio-political* order. One of the greatest strengths of

the *Grande Armée* was that it epitomised the new ideals of the French *republic*, while the Prussian Army remained reliant upon loyalty to the monarch. As both the Emperor of France and the commander of its army, Napoleon enjoyed unprecedented freedom of action whilst the actions of his Prussian opponents were stilted by petty bureaucracy of the highest order. The speed produced by the *Grande Armée's élan* and initiative gave it a decisive edge over the relative sluggishness brought about by the Prussian troops' discipline by fear. French innovation prevailed over Prussian methodicism. While the commander of the *Grande Armée* seized the opportunities presented by the military revolution and RMA, the Prussians clearly did not.

### So What? - Informing the Contemporary RMA Discourse

In the introduction I argued that RMAs result from both technological *and* socio-political influences, and that successful military institutions have historically embraced both new technologies *and* new ideas. The *Grande Armée* epitomised the duality of this approach. To defeat our future adversaries we must do the same, by adopting ideas that encompass both the technological *and* socio-political dimensions of warfare. There is no doubt that we have wholeheartedly embraced all that the RMA vision has to offer from a technological perspective, even if this vision is yet to be fully realised. However this represents only one half of the *Grande Armée's* formula for success. Technology will offer few solutions in future warfare if considered in isolation from its socio-political context.

Recent world events indicate that our likely adversaries have the ability to render Industrial Age, technology-centric warfare irrelevant. Yet, like the Prussian Army of 1806, complacent after its victory over the French Army 50 years earlier at Rossbach, we continue to delude ourselves with our own ascendancy. The contemporary RMA has much to offer, however we must be wary of its technological silver bullets being rendered irrelevant by superior *ideas*. Tomorrow's Napoleons will not sit gloriously astride white stallions, surveying their armies' endeavours on the battlefield below. Rather, they

will be a faceless foe, difficult to identify, speaking a language and fighting a style of warfare we are yet to fully understand, watching the results of their handiwork live on CNN.

The information revolution has introduced a similar disparity of constraint and legitimacy to that which existed between the French and Prussians at Jena-Auerstädt. Free of nation-state political constraints and representing the disenfranchised masses of the globalised world, many of our likely adversaries not only refuse to acknowledge the legitimacy of the nation-state, but strive to undermine it. Western liberal democracies, on the other hand, wrap themselves in the well-worn blanket of nation-state legitimacy, acting unilaterally or multi-laterally against non-state adversaries using Industrial Age-warfare, in so doing often reinforcing their adversaries' legitimacy in the eyes of those who would be inclined to support them.

The signs are there for the reading, but we seem to have ignored them, perhaps *hoping* that our adversaries will pursue our chosen style of warfare on our terms. To this end, we have been conditioned to behave like our political masters. We fear and reject the unknown rather than strive to understand it. We embrace innovations that advance various self-interests but reject those likely to prove relevant and decisive. We endeavour to "solve problems" by swiftly eliminating dissenters instead of addressing the causes. In short, we favour platitude over substance. Unfortunately, platitudes devised for domestic consumption stand for naught against Maude's "actual hard facts of war".

Our challenge, therefore, is to adapt not only to the *methods* and *means* of war presented by today's RMA, but also the changes in the *nature* and *purposes* of war inherent in the Information Age *military revolution*. The parallels that exist between the turn of the 18th and 19th centuries, and the 20th and 21st centuries, lead to the irrefutable conclusion that such a revolution is taking place. Whereas the French Revolution marked the rise of the republican nation-state, the information revolution has marked the rise of the non-state actor. The French military revolution realised the transition from *dynastic warfare* to *national warfare*, from *allegiance to the monarch*

to national identity, from royal armies to national armies, and from class stratification to professional egalitarianism. The contemporary military revolution is characterised by a similar transition, from national warfare to supra-national warfare,<sup>49</sup> from national identity to cosmopolitan identity,<sup>50</sup> from opposing national armies to opposing non-state actors, and from professional egalitarianism to *technobureaucracy*. Our response to these socio-political realities is what should be currently occupying our minds, rather than a pseudo-intellectual dialogue concerning the relative merits of various equipment platforms, and a rehash of outdated, Industrial Age warfighting concepts, underpinned by the mythology of "precision warfare".

Clearly, the imperative for the ADF is to address these profound socio-political changes. First and foremost of these are the changes to the society from which the ADF is drawn, within the broader international context. The strength of the ADF has always been its people, coupled with the fact that they strongly represent Australian societal values. This is reflected in the Senior Leadership's contemporary vision statement - "A force for good, a force to be reckoned with, a force to win." Yet the idea of what constitutes a "force for good" now reflects cosmopolitan ideals rather than merely nationalistic ones.<sup>51</sup> Australian Service personnel are increasingly motivated by ideas of international justice rather than loyalty to nation or empire. They are highly educated. They are drawn from diverse cultures. There is an increasing proportion of women among their ranks. They demand career satisfaction and professional development in a competitive employment market. They are volunteers who readily question the motives of the nation's partisan political leadership. As Nick Jans argues, we ignore these realities at our peril:

*The ADF's "competitive advantage" is not in its hardware, but in the skills and spirit of those who man it. So far, the ADF has been well served in this regard. But the personnel component of capability is a fragile quality, at risk in an age of economic rationalism and changes to career paradigms and employment opportunities in the community*

*at large. There is much evidence that the personnel component of ADF capability is teetering on the balance between either continuing to be a strength and sliding into a close-to unrecoverable crisis: between riding on a post-East Timor surge and declining because many members are close to being fed-up with the continued poor strategic management of ADF human resources.*<sup>52</sup>

Even more significant are the dramatic political changes with which we are presently confronted. The promise of the "new world order" and *Pax Americana* following the end of the Cold War did not eventuate. Instead, the simmering tensions that were allayed by the bipolar order re-emerged, drawing the Western powers into a series of interventions intended to resolve innumerable conflicts rooted in ethnic tension and post-colonialism. Importantly, in every one of these interventions the sources of legitimacy were not only internal but also *external* to the nation-state. Many of the countries that formed only the battlefields of the last world war, on the periphery of former empires, became powers in their own right, some of them now armed with nuclear weapons. Non-state actors, both malevolent and benign, rose in power and influence. September 11 confirmed this, and the reaction of the world's sole remaining superpower, through the "war on terrorism" promises even further upheaval.

At time of writing the only truly international institution that held any promise of fostering world security, however flawed, shows signs of fracture and decline. Francis Fukuyama's "end of history"<sup>53</sup> and Samuel Huntington's "clash of civilisations"<sup>54</sup> may provide some clues to the future, but the only certainties are uncertainty, complexity and friction. These "certainties" imply that the ADF must be prepared not only for "conventional" conflict, whatever that is, but also counter-terrorism and ongoing operations "other than conventional war" to meet Australia's security needs. At the domestic level, the reality of partisan politics, an inherent flaw of democratic governance, forms a large part of the friction that impedes force preparedness. While we may not be able to control or even influence these changes to any great extent, we must,

however, adapt to them, and as Murray and Knox emphasise, in some cases *anticipate* them.

### Conclusion

History shows that RMAs are nothing new. Neither are military revolutions. The challenge confronting the leadership of the ADF, therefore, is to learn the hard-won lessons of the past and capitalise upon the RMA through recognising its co-existence with the broader military revolution at hand. Once again, Murray and Knox emphasise the breadth of this challenge:

*As the great military revolutions of the past have suggested, changes in society and politics – not in technology alone – are the most revolutionary forces of all. It is those social and cultural forces, perhaps unleashed or amplified in earlier periods by new technologies, that will determine the nature of any coming military revolution and will decisively affect how military organisations prepare for and conduct war.*<sup>55</sup>

Lest we follow the example of the Prussians in 1806 rather than the French, the ADF must first recognise these revolutionary forces, then consciously strive to harness them. In recognition of the fact that humanity, not machinery, is the essence of conflict and war, the principal outcome from this process should be the formulation of genuinely new *ideas*, rather than merely the adoption of Information Age technology. Indeed, those who currently champion the RMA and the “concept-led, capability-based” vision might more gainfully pursue a *revolution in military ideas*, founded on the socio-political realities of the Information Age, to effectively transform the ADF from an Industrial Age anachronism into an Information Age archetype.

### NOTES

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4. *ibid.*, pp. 6-7.
5. *ibid.*, p. 12.
6. Christopher Duffy, *The Army of Frederick the Great*, Wren, Melbourne, 1974, p. 175.
7. William H. McNeill, *The Pursuit of Power:*

*Technology, Armed Force and Society Since A.D. 1000*, University of Chicago Press, Chicago, 1984, pp. 144-6.

8. McNeill, *op. cit.*, pp. 166-74.
9. David Chandler, *The Campaigns of Napoleon*, Weidenfeld & Nicolson, London, 1966, p. 138.
10. McNeill, *op. cit.*, pp. 158-65.
11. John R. Elting, *Swords Around A Throne: Napoleon's Grande Armée*, Weidenfeld & Nicolson, London, 1989, p. 81.
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13. Larry H. Addington, *The Patterns of War Since the Eighteenth Century*, 2nd Edn., Indiana University Press, Bloomington, 1994, pp. 21-22.
14. McNeill, *op. cit.*, pp. 162-3.
15. Addington, *op. cit.*, pp. 20-21.
16. See Kevin Kiley, “The Evolution of French Doctrine in the Revolutionary and Napoleonic Wars 1792-1815”, *NapoleonSeries.org*, August 2000 (<http://www.napoleonseries.org/articles/military/doctrine.cfm>).
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22. Gibson, *op. cit.*
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24. A.G. MacDonell, *Napoleon and His Marshals*, Prion, London, 1966, p. 17.
25. Chandler, *op. cit.*, p. 13.
26. Elting, *op. cit.*, p. 58.
27. Chandler, *op. cit.*, pp. 151-78.
28. *ibid.*, pp. 363-5.
29. *op. cit.*, p. 103. My emphasis.
30. Chandler, *op. cit.*, p. 454.
31. *ibid.*, p. 454-55.
32. *ibid.*, p. 504.
33. MacDonell, *op. cit.*, p. 116.
34. Chandler, *op. cit.*, pp. 454-55.
35. *op. cit.*, p. 502.
36. *ibid.*, p. 443.
37. *op. cit.*, p. xv.
38. Chandler, *op. cit.*, pp. 467-8.
39. *ibid.*, pp. 475-8.
40. *ibid.*, pp. 476-7.
41. *ibid.*, p. 486.
42. *ibid.*, pp. 480-88.
43. *ibid.*, p. 488.
44. *ibid.*, pp. 489-95.

45. *ibid.*, p. 353.
46. *op. cit.*, p. 502.
47. McNeill, *op. cit.*, p. 161.
48. Elting, *op. cit.*, p. 6.
49. This includes inter-national (between nation states), as well as intra-national (civil wars and other internal conflict) and extra-national (between nation-states and non-state actors) warfare.
50. Graeme Cheeseman, "Defending the 'Other': Military Force(s) and the Cosmopolitan Project", paper presented to the Chief of Army's Land Warfare Conference 2001, Future Armies, Future Challenges: Land Warfare in the Information Age, Australian Defence Force Academy, Canberra, 9-11 October 2001.
51. *ibid.*
52. "Personnel and the 'Revolution in Military Affairs'", Letter to the Editor, *Australian Defence Force Journal*, No. 146, January/February 2001, p. 3.
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## Reviews

**BEYOND ENDURANCE: AN EPIC OF WHITEHALL AND THE SOUTH ATLANTIC CONFLICT** by Nick Barker, Leo Cooper, London, 1997, 254 pages, illustrated, hard cover \$80, paperback \$51.95 from Peribo, 58 Beaumont Rd, Mt Kuring-Gai, NSW 2080, tel (02) 9457 0011, fax (02) 9457 0022, E-mail peribojc@bigpond.com

Reviewed by A. Argent.



This is the story of HMS *Endurance*, the Royal Navy's Falklands and South Atlantic Guard Ship, in the 1982 Falklands War. The author was her captain during those tense weeks. It was the British Government's announcement to scrap *Endurance* when she returned to the UK after the 1981/82 Antarctic summer season that finally convinced the Argentine junta that Britain had no stomach to defend her interests below 60 South. Indeed, when Argentine occupied Southern Thule in the South Sandwich Islands 1,200 nautical miles south-east of the Falklands in 1977, Britain's response was only a feeble protest against this seizure of her territory. In 1976 an Argentine destroyer had fired on a British Antarctic Survey research vessel 78 miles south of Port Stanley but the British Government's reaction was little more than muted.

Barker gives a detailed account of the politics covering more than 20 years of the recent quarrels between Britain and the Argentine over the windswept, bare islands that are home to about 2,000 sixth generation Britons. It makes sad reading – ignorant politicians, arrogant civil servants, ambassadors completely out of touch with what was happening around them, a Foreign Office set to appease (“a hotbed of cold feet” was an apt description) and scant regard for the

wishes of the Islanders. He also describes his own efforts to retain a naval presence in the Falklands.

Barker assumed command of *Endurance* in May 1980 and took her down to the ice that Antarctic summer. Like the ships once chartered by the Australian Antarctic Division she was built in Denmark in 1956 and began life as *Anita Dan*. She came on the books of the RN in 1968 and was named after Shackleton's famous but ill-fated vessel but was familiarly called “the Red Plum” because of her hull colour. Besides flying the flag, much of her work in the Antarctic was hydrographic survey and assisting the two research vessels of the British Antarctic Survey.

During Captain Barker's command she carried two Wasp helicopters and prudently (but secretly) the AS12 air-to-surface missile launched from those helicopters. She was also fitted with monitoring equipment. Like the AS12 missiles, this equipment played a vital role when the shooting started with the invasion of the Falkland Islands on 2 April 1982. *Endurance* was then in South Georgia waters, 775 nautical miles east of the Falklands, keeping an eye on Argentine ships, servicemen and civilians who had landed in South Georgia without permission. It was here she put paid to the Argentine submarine *Santa Fe* with AS12 missiles and assisted in the recapture of the island.

South Georgia then became the assembly area for the task force sent out from the UK, 6,550 nautical miles away, and Barker was in effect the harbour master. It was a worrying time for, in addition to the threat of enemy aircraft and submarines, the bay was open to the violent winds and winter was rapidly approaching. *Endurance's* next task was to get the Argentinians out of Southern Thule, 500 nm to the south-east. The surrender was signed there on 20 June 1982, almost the very day when mid winter is celebrated in Antarctica.

This book is a thoroughly good read which, amongst other things, shows what happens to some people when history proves their warnings

were unheeded. The weakness of British governments, of both persuasions, led to 255 British dead, 777 wounded, the loss of four RN vessels and a merchant ship with a precious cargo of Chinook helicopters.

### Postscript

*Endurance* was reprieved and went down to the ice for a few more seasons. Sadly, in 1993 she ended her days in a breaker's yard in India. Her replacement was the Norwegian-built MV *Polar Circle*, commissioned HMS *Polar Circle* on 21 November 1991 and subsequently renamed HMS *Endurance*. She displaces 6,500 tons and has a complement of 126 including 14 Royal Marines. In addition, [www.royal-navy.mod.uk](http://www.royal-navy.mod.uk) tells us there is now an Atlantic Patrol Task (South) which "...provides a tangible UK maritime presence as a demonstration of its national interest in the area...responsible for maintaining British sovereignty of the Falkland Islands, including South Georgia and the South Sandwich Islands..."

### WHEN THE SCORPION STINGS The History of the 3rd Cavalry Regiment, Vietnam 1965-1972 by Paul Anderson

Reviewed by Lieutenant Dominic Henley Katter RANR

*"Scorpions eat insects and will only sting to protect themselves. ... The venom of scorpions is used for both prey, capture and defence.<sup>1</sup>"*



*When the Scorpion Stings* is the official history of the 3rd Cavalry Regiment in South Vietnam, 1965-72. As the title of the book proclaims, the badge of the 3rd Cavalry Regiment is a black scorpion, encased by a wreath, with the tail "swung up" as if to strike. The scorpion is placed over an inverted boomerang which has the unit motto "*resolute*". The badge is finished in gunmetal colour to reflect that it was designed and chosen in a combat area, South Vietnam<sup>2</sup>.

The Regiment was the first unit involved in the establishment of the Australian Task Force at Nui Dat and the last to leave when the task force

was finally disbanded. Until now its unique achievements have been lost within the larger accounts of the various infantry divisions to which the regiment was attached.

The regiment's "tireless workhorse" the M113A1 had seen service in Vietnam since the early 1960s<sup>3</sup>. The versatility of the Armoured Personnel Carrier, allowed the regiment to function in dual operational roles: first as cavalry, and secondly as armoured transport support. This monograph argues against the misnomer that the regiment was merely an armoured transport unit or "battlefield taxi".

In Vietnam the regiment served as the "workhorse" of the Australian Task Force. The unit's small size, yet diverse capabilities in action are illustrated in this book. This account documents the role of the 3rd Cavalry Regiment - one of the most decorated Australian units that served in Viet Nam - and the lives of the men who served within it.

This story of the regiment, is effectively the story of Australia's involvement in the Vietnam War, as more than half of all Australian troops in the region operated with the unit at some stage during their service. This work is both a personal and political history. Due to the fact that the regiment served in Vietnam for over six years this book does not attempt to record every incident, movement and operation in which the regiment was involved. However, the book describes in vivid detail how the establishment of the Task Force base at Nui Dat had infuriated the local enemy command, whose forces up to that point had operated at will within the province. It illustrates how the actions of the Australian Task Force were a serious threat to the Viet Cong efforts in taxing, extorting and recruiting from the local population.

The 3rd Cavalry Regiment has its historical origin with the Victorian Mounted Rifles (the VMR), raised in 1885. In May 1965, 1 Troop, A Squadron, 4th/19th Prince of Wales Light Horse (the direct lineal descendants of the Victorian Mounted Rifles), embarked for service in South Vietnam. In March 1966 the troop was re-designated as the 1st Armoured Personnel Carrier Troop. The troop was expanded and in May of the same year became 1st Armoured Personnel



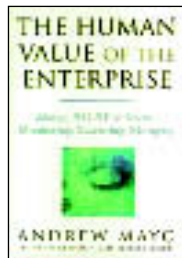
Carrier Squadron. In January 1967 the Squadron was renamed A Squadron, 3rd Cavalry Regiment. B Squadron was raised at Holsworthy in 1967 and both A and B Squadrons saw active service in South Vietnam. The Armoured Personnel Carriers of the 3rd Cavalry regiment in South Vietnam participated in every major Australian Task Force operation including the battle of Long Tan in 1966, the Tet Offensive in 1968, the battle of Binh Ba in 1969 and the battles for Fire Support Bases Coral and Balmoral. In November 1971 the Squadron returned to Townsville as B Squadron, 3rd Cavalry Regiment, while the Squadron in Holsworthy was absorbed into the 2nd Cavalry Regiment<sup>4</sup>.

The author Paul Anderson was a former member of the 3rd Cavalry Regiment and served a tour of duty with A Squadron 3rd Cavalry Regiment in South Vietnam in 1971. In this book he was able to combine personal experience with detailed research. After his service he returned to the rural bank of NSW until his retirement in 1996. He died soon after completing the manuscript for this book in 2001. This book is a testimony to the 20 members of the regiment who did not return home alive and to the 110 who returned with serious injuries.

- 1 See the website:  
<http://www.hitthetrail.com/scorpions.htm>.
- 2 The badge was designed by Lieutenant General John Grey AO (ret'd) and assisted by Charles Gaunt and Colonel Roger Kershaw (ret'd) both of whom were adjutants in succession during Lieutenant General Grey's time in Vietnam. It was chosen as the symbol of the 3rd Cavalry Regiment as it had already been adopted informally and painted on the side of all M113A1 vehicles with the squadron.
- 3 The M113A1 has subsequently served in Somalia, Rwanda and now East Timor. The "APC" has seen over 40 years of service with the RAAC.
- 4 In 1981 B Squadron 3rd Cavalry Regiment was amalgamated with the 4th Cavalry Regiment to form the 3/4 Cavalry Regiment. The 3/4 Cavalry Regiment, now reduced to a single squadron, supported the Operational Deployment Force (ODF) and in December 1992 deployed with the 1st Battalion, Royal Australian Regiment, to Somalia as a part of 'Operation Solace'.

**THE HUMAN VALUE OF THE ENTERPRISE** by Andrew Mayo, Nicholas Brealey Publishing, London, A\$55.

*Reviewed by Group Captain Mark Lax.*



How many times have we heard the phrase "People are our most important asset", not only used within Defence, but also used by a wide range of other organisations? The problem is, when we say it, does anyone in the organisation believe it? This

book explains why it is true, why we need to make it credible across the organisation and how to make a successful organisation through a culture of valuing people.

The study of HRM issues has become a growth industry and there are now literally hundreds of books on the market on this subject. This one is a British offering, which takes an American style approach, no doubt targeted at that more lucrative market. However, I believe it is worth a second look because it challenges us to put people first and tells us how. Thankfully, it is not just a rehash of the latest *Harvard Business School* trend. Mayo offers the reader seven people challenges "up front". By his own admission, he builds upon Kaplan and Norton's *Balanced Scorecard* ideas and proceeds to answer the questions he poses. His key challenge is; how do we assess the value of people? That is, how do we measure human capital value? This book is essentially about that value measurement.

Andrew Mayo regards himself as a professor of "human capital management" and is presently program director of the London Business School and Middlesex University Business School. His credentials speak for themselves, so he has had opportunity to develop his ideas over many years. For *The Human Value of the Enterprise*, he uses a building block approach to the 11 chapters presented. He explains the extant Human Capital models and concludes with a strategy for implementation of a workable system.

Subtitled "Valuing People as Assets – Monitoring, Measuring, Managing", the book suggests that running companies on the basis of

financial measures alone is becoming obsolete. By putting a value on people and recognising each individual's potential (Mayo calls this "mapping know-how"), we can recognise an organisation's true productivity and success rate. The book concludes with an appendix entitled: "The Development and Measurement of Intellectual Capital", but why it is not just covered within the main text, I am unsure.

Presented in an easy, clear style and liberally illustrated with graphics and flow diagrams, the book consists of 281 pages plus reference section and concise index. For those within Defence's various personnel organisations struggling to measure the value of our people, and to attract and retain them, this book may answer many of your questions. Recommended for those in HRM.

**THE BIG E: THE STORY OF THE USS ENTERPRISE** by Edward P. Stafford with an introduction by Paul Stilwell published by Bluejacket Books, United States Naval Institute Press 2002 reprinting of original 1962 edition, paperback, 585 pp, index, photographs and maps

*Reviewed by Commodore James Goldrick*



The United States Naval Institute has for some time republished important works of naval history and fiction in its "Classics of Naval Literature" series. Bluejacket Books is a more recent effort to reduce the price of these books by issuing them as paperbacks.

The *Big E* is very much in the tradition of its predecessors. It is a lively and engaging narrative of the operational service of the most famous USN aircraft carrier of the Second World War. Written by a naval aviator with operational seagoing experience, its focus is very much upon

the remarkable achievements of the *Enterprise's* air groups between 1941 and 1942. In terms of 2003, however, *The Big E* cannot be considered as an authoritative history of the Pacific conflict, or even a small part of it. Although based upon extensive archival research within the US Navy's records, it inevitably reflects the American perspective and some of the exaggerated claims which are inevitable in the heat of war. It is clearly written to celebrate the achievements of those involved, not dissect them. Nevertheless, it is a fine read and a gripping narrative which succeeds admirably in capturing the "feel" of the ship and her crew which, as Paul Stilwell implies in his introduction, was the real point of producing the book originally. That "feel" inevitably reflects the best of the *Enterprise* and her people and it lacks something of the shadow that a truly dispassionate history would include, but, to its credit, it succeeds in conveying a sense of the strain and the agony of war at sea and their effect on individuals.

Perhaps the most important lesson which the book conveys is to make the reader appreciate just how long the Pacific campaign was, and how difficult. *Enterprise* was in the thick of it from the time of Pearl Harbor (she was at sea returning from transporting aircraft to Wake Island) to the kamikaze attack in May 1945 which forced her home for major repairs. For the units which were so involved, danger was ever present, whether from over or under the sea. Even when the United States had achieved the overwhelming superiority which made the conclusion of the war inevitable, the Japanese suicide missions took a heavy price of ships and men.

Purchase and read this book by all means. Think of it as you would a novel by Herman Wouk – it conveys an artistic reality and some extraordinary insights into a period of history as important for Australians as it is for Americans. Then move on to more recent and dispassionate surveys of the Pacific War.

